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DECEMBER 14TH, 1875.

Colonel A. LANE FOX, *President, in the Chair.*

The minutes of the previous meeting were read and confirmed.

W. A. JEVONS, Esq., of Southport, was elected a member.

The following presents were announced, and the thanks of the meeting were voted for the same, viz:—

FOR THE LIBRARY.

- From the SOCIETY.—Journal of the Asiatic Society of Bengal. Vol. XLIII. Part 2, extra Number.
- From the EDITOR.—*La Conversazione*. No. 1, 1875.
- From JAMES BURNS, Esq.—Human Nature for November, 1875.
- From the EDITOR.—*Materiaux pour l'Histoire de l'Homme*. Vol. VI. Nos. 10 and 11.
- From the ANTHROPOLOGICAL SOCIETY OF BERLIN.—*Zeitschrift für Ethnologie*. Nos. 1 to 4, 1875.
- From the EDITOR.—*Revue Scientifique*. Nos. 22 to 24, 1875.
- From the ANTHROPOLOGICAL SOCIETY OF SPAIN.—*Revista de Antropologia*. Vol. II. No. 8.
- From the INSTITUTION.—Journal of the Royal United Service Institution. Vol. XIX. No. 83.
- From the AUTHOR.—*Les Crânes des tumuli de la Pakuti*. By Dr. J. Kopernicki.
- From the Rt. Hon. Lord ARTHUR RUSSELL, M.P.—Papers, &c., relating to the Ashantee Invasion. Nos. 1 to 9. Ditto, Abolition of Slavery on the Gold Coast. Papers and Reports on the late Kafir Outbreak. Ditto, relating to the Slave Trade; Nos. 2, 3, 7, and 9. Ditto, relating to Drought in Bengal. Report of Commodore Goodenough and Consul Layard on the

offer of the Cession of the Fiji Islands to the British Crown. Report on the South Sea Islands. Ditto, on Coolie Immigration. Pacific Islands Protection Bill, &c.

From the EDITOR.—Nature (to date).

The following paper was read by the author :

On the BELIEF in BHUTAS—DEVIL and GHOST WORSHIP in WESTERN INDIA. By M. J. WALHOUSE, F.R.A.S.

ALTHOUGH the lower castes and classes in India acknowledge and reverence the Brahmanical gods, their familiar household cultus is much more especially addressed to inferior supernatural beings analogous to the evil spirits, devils, ghosts, and goblins of European superstition. According to Hindu doctrine there are ten classes of such beings, the first seven of which are demons, created aboriginally with the world, or by acts of the higher gods, on whom they wait as attendants or servants, receiving some share of their worship, and avenging any omission or neglect of ceremonies due. Though not invariably, they are for the most part evilly-disposed towards human kind, especially the female powers amongst them, which are many. But the last three classes, of whom more particularly it is now intended to speak, are of exclusively human origin, being malignant, discontented beings, wandering in an intermediate state between Heaven and Hell, intent upon mischief and annoyance to mortals; chiefly by means of possession and wicked inspiration, every aspect of which ancient ideas, as well as of the old doctrine of transmigration, they exemplify and illustrate. They are known by the names of Bhūta*, Prēta, and Pisācha; the first name being ordinarily applied to all three, and even vulgarly to the seven superior classes. These beings, always evil, originate from the souls of those who have died untimely or violent deaths, or been deformed, idiotic, or insane; afflicted with fits or unusual ailments; or drunken, dissolute, or wicked during life. The precise distinction between the three classes is that the Prēta is a ghost of a child dying in infancy, or of one born deformed, imperfect, or monstrous; events attributed to neglect in performing certain ceremonies prescribed during the ten days when, according to popular notions, the limbs of the embryo are forming in the womb: such a ghost becomes a misshapen, distorted goblin. The Pisācha, on the other hand, is derived rather from mental characteristics, and is the ghost

* *Bhutas*.—"Malignant spirits, goblins, or ghosts, haunting cemeteries, lurking in trees, animating dead bodies, and deluding and devouring human beings."—Thompson.

of madmen, habitual drunkards, the treacherous and violent-tempered, as though realising the idea that the evils that men do live after them in the guise of malicious spirits. Bhūtas, however, emanate from those who die in any unusual way, by violence, accident, suicide, or sentence of law; or who have been robbers, notorious evil-doers, or dreaded for cruelty and violence. The death of any well-known bad character is a source of terror to all his neighbourhood, as he is sure to become a Bhūta or demon, as powerful and malignant as he was in life. Some of the Bhūtas now most dreaded were celebrated personages of old days. All such persons on death are liable to become Bhūtas, and attach themselves to any beings of the higher classes whom they first meet on entering the spirit-world, and derive from them power and assistance in tormenting and afflicting men and animals. As an example of how forcibly this idea possesses the popular mind, I will read an extract from a recent Indian newspaper :—" We learn from a correspondent at Cochin, that, a couple of days before the Christmas holidays, a Nair of Chenganoor, in cold blood, murdered his paramour, on suspicion of her infidelity. The noteworthy and strange feature of the case is, that when he was taken up and arraigned before the Sessions Court, he pleaded 'guilty' to the charge, but earnestly implored that the extreme penalty of the law, which he admitted he fully deserved, might be carried out, not at the usual place of execution, but at the scene of his crime, in order that he might, according to his theory of the transmigration of the soul, assume the form and life of a 'demon,' and thereby have full scope for revenging himself on the man and his associates who were the cause of leading his unfortunate victim astray." It is also held that by certain ceremonies and expiation this form of existence can be dissolved, and the unquiet spirits remitted to regions of reward or punishment, according to their deserts on earth.

In their haunts and modes of appearance Bhūtas repeat the popular beliefs of many countries. They wander borne upon the air, especially in uninhabited, dry, and desert places; and tall trees are a favourite abode. The third watch of the night, or from 12 to 3 o'clock, is the time when they wander abroad most freely; and belated travellers sometimes meet them then in the shape of dark shadows. As the ancient Jews would speak to none whom they met after midnight, for fear they might be addressing a devil, so Hindu villagers will speak to no one they may meet at that time, lest he should be a Bhūt, nor, indeed, willingly then stir out of their houses. The eddies of wind that career over plains in the hot weather, whirling up leaves and columns of dust, and flickering lights

seen gliding over marshes, are regarded as Bhūtas passing by. Objects seen indistinctly moving in the dusk or mists, are attributed to them; and so, indeed, are all visions.

Of calling shapes and beckoning shadows dire,
And airy tongues that syllable men's names
On sands, and shores, and desert wildernesses.

The Gools of Arabian superstition closely resemble Bhūtas, assuming monstrous shapes of men or animals, frequenting desert places and burial grounds, and feeding on carcases.

The before-mentioned classes are believed more particularly to afflict human beings by entering into and possessing them. Gaping or drawing deep breaths are supposed to give them opportunities for this, and no Brahman ever gapes without snapping his fingers before his mouth, as a charm to prevent an evil spirit entering. After gaining an entrance, they seat themselves in the lower part of the abdomen, and feed upon all the unclean excreta. Whilst so dwelling they are held, by interrupting digestion and circulation of the humours, to cause fits, paralytic strokes, temporary aberrations, outbreaks of madness, cramps, and rheumatic pains. All this closely tallies with the beliefs regarding possession current amongst the Jews and early Christians; the former in particular believing that unclean spirits, by reason of their tenuity, were inhaled and insinuated themselves into the human body, injuring health through the viscera, and forcing the patients to fulfil their evil desires. The grosser parts of the body and all unclean places were their especial abodes, and an evil spirit was declared by the Rabbins to inhabit every privy in the world. Besides diseases and bodily afflictions, the evil influence of Bhūtas is believed to occasion family discord, hatred between brothers, ill-temper and gloominess, the death of children during the life of parents, the non-survival of births, barrenness in women, atheism, and neglect of religious ceremonies. Although, properly speaking, they are not held to have power over human life, the villagers and common people believe they have, and outbreaks of disease, sudden deaths, and wasting away are always ascribed to their malignant power. Cattle diseases of every kind are invariably attributed to them, as in Scotland and Ireland to elf-bolts, as celts and flint arrowheads were called, and popularly supposed to be missiles formed and discharged by malicious fairies: an imagination commemorated by Collins in his *Ode on Highland Superstitions*:

There every herd by sad experience knows
How, wing'd by fate, the elf-shot arrows fly.

It may be readily conceived that superstitions like these, entering into every part of daily life, would exercise a much

deeper influence over a sequestered, ignorant rural population, than the loftier, more abstract Aryan conceptions; and they are also distinctly Turanian, to which race the great underlying stratum of the population of India appears to have belonged, and over which the subsequent Aryan invasion spread itself, each in the course of ages influencing the other, characteristics of the one cropping up, and of the other filtering down. All demonologies and ghost-systems belong to the Turanian races, and are antagonistic to the Aryan genius and feelings, though, after ages of intercourse and blending, some of the superstitions of the lower race may have crept into the intellect of the higher.*

In proceeding now to give some account of the ceremonies and worship paid to the Bhūtas, I shall confine myself principally to those current in Canara, on the Western Coast of India. The same cultus, with some variations, obtains, however, all over India and Eastern and Northern Asia; the Bhūta belief being found everywhere under different names and forms.

The edifices and observances connected with Bhūta worship are both domestic and public. In villages, and very generally in towns, there is in every house a wooden cot or cradle, placed on the ground or suspended by ropes or chains, and dedicated to the Bhūta of the spot. On these are placed a bell, a knife, or sword, and a pot filled with water, all which are collectively called the Bhandāra of the Bhūta, and kept either in a part of the house itself, or in a small separate building. The idea seems to be of placating the spirit that haunts the spot by making a sort of abode for it, much in the same way as the cream-bowl was nightly set for the "drudging goblin," or brownie, in England. On the last day of every lunar month flowers are laid on the cot, and perfume burnt before it; and once a year, towards the end of April, a ceremony called Tambīla is performed. First, a fire is lit on the spot where the cot and paraphernalia stand, to make it "shoodha," i.e. clean; then fried rice, mixed with coarse sugar and grated cocoanut kernel, is heaped on two plantain leaves, which are placed on the cot, together with some young cocoanuts, pierced ready to drink from. A ball is then formed of boiled rice, coloured yellow with turmeric, and laid on a piece of plantain-leaf on a small stool, which is placed before the cot, and a lighted torch stuck on it. A fowl is held above the rice-ball and torch, its throat cut, and the blood let drop upon the ball; some perfume is burnt, and the ceremony ends. The cocoanuts placed on the

* A trace of this is, perhaps, seen in the Laws of Manu, where (xii. 71-2) it is declared that a Kshatriya who neglects his duties will, at the after-birth, be changed into a demon that feeds on ordure and carrion; and a Sudra into an evil being, that eats rotten carcases—that is, into Bhūtas.

cot are then taken and dashed on the ground, or cloven in half. If the pieces fall with the kernel upward, it signifies the Bhūta is pleased with the offering; if with the kernel downward, the reverse. Should a member of the family be stricken with any unusual attack, such as apoplexy, paralysis, cholera, &c., or should disease break out amongst the cattle, it is at once ascribed to the anger of the Bhūt, and a propitiatory sacrifice is offered. A fowl is turned three times round before the patient's face, its neck then twisted, and the blood let fall upon him, and some rubbed on his forehead and joints, the meaning being to offer life for life—the fowl in lieu of the man. Powdered sandal-wood is then sprinkled over the Bhūta's cot, and water from the pot kept there dashed upon the sick man's forehead and eyes. The family priest is then consulted, who, after much grave meditation, usually recommends alms to be given to himself to satisfy the hostile stars, with a promise to perform a special ceremony to the Bhūta, and give a banquet to all the patient's castemen should he recover. Medicine is not neglected, but, in event of recovery, the credit is ascribed to the influence of the Bhūta.

The general buildings dedicated to these demons are called Bhūtastāns, and when dedicated to one of the superior, or very popular Bhūtas, sometimes of considerable size; but far more commonly a small plain structure, four or five yards deep, by two or three wide, with a door at one end, covered by a portico supported on two pillars, with a thatched roof, and windowless. In front of it there are usually three or four T-shaped pillars, the use of which is not clear. They are said to denote that the building is a Bhūtastān, and flowers are placed, and cocoanuts broken on them at ceremonies. It may be worth noticing that pillars of exactly the same shape are found accompanying the mysterious Balearic Talyots, the purpose of which has hitherto baffled antiquaries. Inside the Bhūtastān there is usually a number of images roughly made in brass in human shape, or resembling animals, such as pigs,* tigers, fowls, &c. These are brought out and worshipped as symbols of the Bhūtas on various ceremonial occasions. The Bhūtas themselves are usually represented by mere rough stones. Some of the brass figures are now on the table, and the difference between the Turanian and Aryan mind will appear on comparing these rude village idols with images of the Brahmanical gods. Brass basins, bells, a peculiarly-shaped sword, and some other articles used at ablutions are also kept within. These rustic fanes are thickly scattered over

* In the British Museum there are some marble images of swine, sacred to Persephone, found in the temenos of the temple of Demeter at Onidos, which may have been offerings, like these Indian ones of brass.

the face of the country in very various situations—under a green tree, on hill-sides, down in hollows, in jungles, on plains, by roadsides, in villages, amid rice-fields, but always on a small plot of waste ground, which is kept uncultivated, like the "guid-man's croft" in Scotland. A rough drawing of one of ordinary size and appearance is annexed.

Once a year a festival called Kolla is held at the village Bhūtastān, in honour of the local Bhūta, at which all the villagers attend. There is no fixed time for this, but the village priest, after consulting with the principal inhabitants, determines an auspicious day. This being settled, a tall pole is fixed upright in the ground before the Bhūtastān, and a flag, that is always kept within, hoisted upon it. The Bhūt's Bhandāra, or paraphernalia, and the images, &c., are brought out and cleaned, and a large fire kindled to purify the spot. The festival always takes place at night, and about 9 o'clock all the villagers assemble in their best attire, the women wearing all their ornaments, and their heads, as well as often the men's, thickly garlanded with flowers. Tom-toms and drums are beaten, and the Pujāri, or priest, takes the Bhūta-sword and bell in his hands, and whirls round and round, imitating the supposed mien and gestures of the demon. But he does not aspire to full possession, which in aboriginal rites like these is only given to a representative of the aboriginal tribes, now the lowest castes. A Dhér, one of the slave caste, at other times regarded with contempt, but now advanced to the foremost post, comes forward naked, save a waist-band, and with all his head and body grotesquely and frightfully besmeared with white, yellow, and red paint. Over his head, and tied to his back, there is a sort of an arch, termed Ani, made of green cocoa-tree leaves, with their ends radiating out. For some time he paces up and down, within a ring formed by the crowd, flinging about his arms, gesticulating wildly, leaping, and shaking his body furiously. Meanwhile a dozen or more tom-toms and drums are beaten incessantly and stunningly, with a continually increasing din; and the Dhér presently breaks into a maniac dance, capering, bounding, and spinning vehemently, whilst the instruments redouble their noise, the power of the Bhūta being estimated by the fury and persistence with which the Dhér dances. The multitude around joins in raising a long, monotonous, howling cry, with a peculiar vibration. At length the Dhér stops, he is full of the demon, and stands fixed and rigid, with staring eyes. Presently he speaks, or rather the demon speaks from him, in loud, hoarse, commanding tones, wholly unlike his own, or indeed any natural voice. He addresses the head man of the village first, and then the principal inhabitants in due order, for any neglect of etiquette on this point by

the Bhūta would infallibly give rise to great resentment. After thus speaking to the principal villagers and asking whether all the people are present, the possessed Dhér goes on to say that the Bhūta is pleased with the performance of the ceremony, and exhorts all the people to behave justly and charitably to one another. Various disputes and litigated matters, especially when evidence and ordinary means of adjustment fail, are then brought forward and submitted to the decision of the Bhūta, and his award, pronounced through the Dhér, is generally, though not always, submitted to. After this the demon desires to have food, and the Dhér eats fried rice and drinks the milk of young cocoanuts; or, if the demon he represents be one of low degree, he eats animal food and drinks arrack. He then distributes areca flowers and pieces of cocoa-nut to all assembled in due order of precedence, and the Bhūta passes away from him, he loses his commanding mien and tones, and relapses into the servile drudge. The assembly then addresses itself to festivity; there is much drinking of arrack, the drumming and wild music go on vehemently, interminable songs are sung, and at the first dawn the people disperse on all sides to their homes. The houses and farmsteads composing a village in Canara lie widely scattered over a surface picturesquely diversified with hill and hollow; and not unfrequently, when riding over the country before sunrise, as Anglo-Indians do, I have met long files and troops of people returning from these nightly celebrations. They are a tall and comely race on that western coast, and looking at the women, with their many-coloured, classically-adjusted garments and garlanded heads, I have thought that troops of Bacchantes or Mænads descending from the valleys of Cithæron, where all night long the tambour and cymbals had been resounding, and the torches flaming beneath the pine trees, might not have been so dissimilar to them, and that had we exact details of the wild Bacchic orgies and rites of the Mighty Mother, manifestations might be disclosed not distantly akin to those now witnessed in the East.* It may not even be too bold to conjecture that a cultus springing from the same general idea, namely, demons or the dead, speaking through the living, may have existed in German and Gaulish forests or British valleys in the ages before the Roman invasion; and that much, looking that way, might have been picked up by any Latin archæologist who troubled

* Circe, whose name is derived from the whirling magic dance, with her herd of transformed Bhūta-like votaries, may be also cited; and the Salii, or leaping priests of early Rome. Compare, too, in Arabian story, the striking picture in Southey's "*Thalaba*" (Cant. ix.), of the terrible witch Khawla, possessed by Eblis, and uttering inspired warnings after wild gyrations and a bloody sacrifice: a shadow of such rites may survive in the spinning Dervishes to-day.

himself about barbarian folk-lore. Caesar and Tacitus record only the names and rites of the higher gods, just as the English in India know generally something of Shiva and Vishnu, and the principal Brahmanical deities, but seldom anything of the obscurer divinities and worship of the common people.

It is indeed striking to survey how ancient and how widely spread are the ideas and observances already described. In Tinnevely, the extreme southern province of the Indian peninsula, the popular cultus is devil-worship, essentially the same as the Bhūta-worship of Canara, and has been described minutely by the Rev. R. Caldwell, of the Tinnevely Mission. There the devil-dancer, as the officiating person is called, grotesquely arrayed and bedizened, dances, with gradually increasing frenzy, to the quickening clamour of drums and cymbals, whirling and leaping till the afflatus descends; then, when under full control of the demon, he is worshipped as a present deity, and consulted by the bystanders respecting their diseases, wants, and the welfare of absent relations. Mr. Caldwell has also pointed out that all such observances are identical, point for point, with the Shamanite worship of Siberia, the hill-tribes of South-western China, and of Northern Asia, as the subjoined passage will show:—
“When the Shaman, or magician, performs his rites, he puts on a garment trimmed with rattles and bells, he cries horribly, shakes his robe, beats a drum, whilst the bystanders increase the din by striking on iron kettles. When the Shaman by his contortions, yells, and whirling has succeeded in assuming the appearance of something preternatural, the assembled multitude are impressed with the belief that the demon has taken possession of him, and regard him with wonder and dread. When quite exhausted he makes a sign that the spirit has left him, and then imparts to the people the intimation he has received.” As Mr. Caldwell remarks, such identity of usages is evidence of a common origin. I have witnessed oracular responses given under the supposed control of a demon, after gesticulatory dances amongst that peculiar tribe, often mentioned before this Society, the Todas of the Nilgiri Hills. In Siam spirit-dances are held in a shed built for the purpose, in which offerings are set out for the demon, who is invited by the usual wild music to come down to the dance; but there is this peculiarity, that there the demon always enters a woman, which is scarcely ever heard of in India. She herself does not dance, but bathes and rubs herself with scent, dresses in a red waistcloth and dark silken jacket, and awaits the descent of the demon, who is incited to come by redoubled din of music and chanted incantations. When he comes she shakes and trembles, and then, assuming the airs and manners of a great personage, all present worship and pay her homage.

Sometimes the spirit of one of their ancestors, sometimes a foreign demon, is supposed to have taken possession of her body. She answers questions, and gives commands and directions in a haughty, imperative tone, and all her words are humbly listened to, and afterwards she partakes of the offerings provided for the demon. An old woman usually plays the part, and after the influence has left her, she declares she knows nothing of what took place, or what she may have said. All these practices are in full force amongst the Chinese, and are described in the most ancient Chinese works "by the Emperor Fuhí, probably nearly 3,000 B.C.," says the Rev. Mr. Nevius, in his work, "China and the Chinese." "They burn incense, beat a drum to call the attention of the desired spirit," writes Padre de Mae, "and then by idolatrous methods, one of which is a spasmodic ecstasy, they get responses from the dead." Had Mr. Layard penetrated more fully into the meaning of the wild rites and dances of the Yezidis, or devil-worshippers, of Kurdistan, which he describes so vividly in his work, "Nineveh and its Remains" (vol. i. 293), or been admitted further into the secrets of the cultus, the same belief and manifestations would probably have been found to be at its root. In New Zealand the Tohunga, or priests, evoke after certain wild ceremonies the spirits of the dead, who speak through them in strange, unearthly tones. Nearly the same practices have lately been described as prevailing amongst the Greenland Eskimo. Other instances might be cited of these ideas and usages in widely-separated nations; and amongst ourselves a trace or survival of them may perhaps be discerned in the unknown tongues of the Irvingites, which were said frequently to break forth after violent contortions; amongst the Shakers and Jumpers, too, of America and England, rapturous prayers and adjurations are reported to be sometimes uttered after violent, prolonged dancing,* and in Spiritualist circles manifestations are said to be much assisted by those present joining in hymns and singing.

In face of the vast array of learning, and instances bearing on the subject, brought together with such marvellous labour and

* The newspapers contain a report of an extraordinary scene at Exeter last week (December, 1875), when "Mother Girling," the head of the New Forest Shakers, gave a lecture at that place.

"Mrs. Girling was listened to with some attention at first, but the audience soon began hissing and cheering. Suddenly one of the eight girls who accompanied the lectress rose from her seat, and began to dance, with eyes closed, and arms waving to and fro. This demonstration (says the *Western Morning News*) caused loud laughter at first, followed by groans and hisses, which were redoubled when Mrs. Girling explained that it was the operation of the Spirit. The dancing girl next commenced singing snatches of hymns, and one of her companions fainted for a moment and then began to dance as well. Great disorder followed. Appeals were made to the Shakers to stop the dancing, to which they replied they had no

research in Mr. Tylor's chapters on "Animism," one cannot but feel that a paper like this is superfluous. But if the almost universal belief, amongst the lower races, in their continued existence after the death of the body, may have arisen from the conclusion that the figures of the dead, seen in dreams and visions, must be their surviving souls, it may be allowable to reflect how much that supposition would have been strengthened by believing their voices were heard after death speaking to their tribe and followers. It is amongst the most primitive and savage races that such beliefs are at this day current. Modern industry and investigation are piercing somewhat further into the dim and misty morning of the yesterday we have hitherto styled antiquity; but what papyrus roll or burnt-clay cylinder will disclose what was the creed and what the gods of the flint-folk, or what the thoughts as to a hereafter of the man who traced the outline of the Mammoth on the piece of tusk in the Christie collection? These are beyond surmise, except forasmuch as those races, being human, must have dreamed dreams and seen in them the departed in their habit as they lived; and as there may have been some subject to those strange, delirious ecstasies, natural or produced, in which the very voices of the dead are imagined to be heard again, it may not be too bold to conjecture that the wild cultus and ceremonies described above may have originated in that "dim, backward, and abyss of time" and antiquity of man of which only late years have given us definite assurance. A short reference may here be made to the dancing mania, which, beginning in 1374, for two centuries plagued Germany and the adjacent countries. The amazing details respecting it may be read in Dr. Hecker's "Epidemics of the Middle Ages." Whole communities were seized with a disease of frantic dancing, continued for hours and days, during which they neither saw nor heard things external, but were haunted by visions and spirits whose names they shrieked out. Intoxicating music increased and spread the delirium, and streets and cities were filled with hundreds of raving dancers of both sexes: the disease was universally ascribed to demoniacal origin. Sympathy and contagion may have been much concerned with this strange phenomenon, often called St. John's Dance, but its roots probably existed in primitive heathen observances connected with St.

power to do so. By this time the number of dancers had increased, and a rush was made to the platform, which was speedily occupied. The scene at this time defies description—three or four girls with dishevelled hair, and faces streaming with perspiration, dancing within a circle of policemen, and an infuriated mob trying to get at them and their companions, and hustle them from the platform. One of the men of the Shaker party, who had up to this time remained comparatively cool and collected, suddenly commenced to jump, and defied the efforts of three or four stalwart men to keep him still."

John's Day.* Beside numberless local Bhūtas there are some thirty especially feared in Canara, possessing temples and shrines in various parts of the province: several are females. The most dreaded and malignant amongst them is Kālkātti, or the Stonecutter, reputed to be the spirit of Jackanachāri, a famous stonemason and architect, who between four and five centuries ago built most of the exquisitely beautiful Jaina temples that exist in Canara. Much legend has gathered about him, but he undoubtedly lived, and must have been a craftsman of marvellous skill. The tradition runs that he and his wife, having quarrelled with their son respecting a temple then in process of building, they both committed suicide and became Bhūtas so malign and feared that none dare attempt an exorcism when their presence is suspected. The next most dreaded Bhūta is *Panjurli*, i.e. pig-rider, whose origin is forgotten, but is probably the perturbed spirit of some one once notorious. *Gūliga* is regarded as an aboriginal or earth-born demon, and has power during certain minutes on certain days to pass through the air, and strike those he meets with a rod, thereby causing fits, paralysis, or even death. His glance also causes sickness, but the hours in which, in Shakspeare's sense, he can take or injure, are limited. *Chamundi*, signifying mistress of death, is a female earth-spirit,† and when the Kolla ceremony is offered to her, a large pile of wood is kindled, and after it has become a heap of glowing embers, the Dhér who represents and is possessed by her, dances and rolls upon them for some minutes without injury. *Munditāya* is the ghost of a Balala, or high casteman, who died by some accident, and is reputed very troublesome; sandal-wood powder and water, taken from the cot hung up to him, are, however, believed, when rubbed on, to cure snake-bites without further remedy. Most Bhūtas haunt large trees, and it is of this last one, I think, that a story is told regarding a large solitary Banian tree near a village in the province. A demon was said to live in its branches, and none dare climb it. Some Mussulmans, however, laughed at the story, and one of them climbed

* The subjoined notice of a picture, entitled "La Saint-Jean," by M. Jules Breton, representing, it is understood, an actual scene in Brittany, is not irrelevant to the general subject of this paper. "The subject is the immemorial custom of dancing round fires on St. John's Day—a custom by no means quite disused in England, and still frequent in France. A group of stalwart and rough country wenches are dancing furiously, and, with the utmost rapidity, circling about a huge bonfire which has been made on a village green. The red and orange flames rise and flash in the air between the figures; the women seem to be singing as if they were mad. In the distance are other figures, bearing and waving torches."

† "then no planet strikes,

No fairy takes."—*Hamlet*.

‡ Also called the tigress, and identified with the most cruel aspect of Parrati, the wife of Shiva.

up, but when he had got well up in the branches, the goblin was suddenly revealed to him in a monstrous and frightful shape, on seeing which he screeched, let go his hold, fell to the ground, and remained raving with terror for three days; his back was injured by the fall and he became hump-backed, but lived to be 90, and would often tell the story. The tree is now half-dead, and limbs and branches often fall from it, but none will go near or pick them up. So in Denmark and Norway the elf-people frequent large linden trees, and it is not held safe to break their branches or go near them after dusk. The Dhärmāstal Temple,* situated in a wild forest track in Canara, is one of the most famous in all that part of the peninsula, and is the abode of seven or eight very powerful Bhūtas, who are so dreaded that none will assume their names. In civil suits, when the evidence is balanced or hopelessly contradictory, it is very usual for one of the parties to offer to decide it by taking an oath as to the justice of his contention before one of the Dhärmāstal deities: this, when accepted and done with certain formalities, is always held satisfactory and decisive; for the litigants know well that no one would dare to risk abiding the vengeance of those terrible Bhūtas by a false adjuration. With respect to assuming their names, it may be explained that it is very common to name children after any Bhūta who may be very popular at the time, probably with the idea that the compliment might induce him to regard the child and family with favour. I remember that a good many years ago a notorious and greatly dreaded dacoit was hung in Trichinopoly, who after death became so fashionable a Bhūt that for some time half the children born were named after him. I may perhaps mention two or three out of the instances of the belief in Bhūtas that came before me officially as judge. In a trial for murder before the Sessions Court, the prisoner was charged with having intentionally caused the death of his younger brother, whom he struck down as they were ploughing. In defence the prisoner stated, through his vakil, or pleader, that the deceased whilst at work in the field was struck by the eye of a Bhūt, of which he died; and his witnesses deposed that they had known similar instances. In another murder case the evidence of a material witness was objected to because he was well known to be under the curse of a Bhūt, and in consequence a desperate man, whose statements could not be believed. Again, a Potél, or village head-man, was charged with having entered the death of a boy in his register as natural, when he had really committed suicide:

* Round stones are sold at this temple, which are believed to carry the power of the Bhūtas with them; they receive offerings, and can be invoked against any enemy, who will forthwith be visited by all sorts of misfortunes.

in defence the Potél asserted that the boy had died from a blow by the village Bhūt, and named several similar instances. On being punished by the magistrate, he appealed to the Sessions Court, reasserting his plea, and desiring to call witnesses to prove it. These men were far from unintelligent, and the vakils, or native pleaders, acute and well able to conduct a legal argument. But we can hardly ridicule them much, when we reflect that within the last eighteen months a young farmer was sentenced to six months' imprisonment at Dorchester for savagely beating an old woman because she "hag-rode" him; another man in Somersetshire was charged for twice stabbing a woman who had "over-looked" him, that he might break the spell with her blood; and there were four other convictions, in Somersetshire and Devonshire alone, for assaults committed, or payment taken, on account of, or to cure, having been bewitched: and all the persons connected may presumably have been at school, and attended some church or chapel.*

Very often Bhūtas become a sort of house-spirits, such as are heard of in many popular mythologies, more or less mischievous and delighting in Robin Goodfellow's pranks. Howlings and unearthly shrieks and noises that cannot be traced are attributed to them. Household utensils are thrown about, and stones flung by invisible hands,† and pots and cooking vessels found filled with dirt. Women put away their best clothes carefully, and in the morning find them unaccountably on fire and smouldering away. All these are ascribed to the Bhūta, as well as what would now be called a kind of levitation, which is declared to be very frequent. Infants are missed from their cradles, and presently heard crying in the loft of the house, or on stacks of straw outside. Once riding through a village, I found the people in great excitement at a prank played by a Bhūta two days before. A woman lying apart in her room, expecting her confinement, was suddenly missed, and could nowhere be found, till some children heard her voice proceeding from a dry well in a field hard by. She was drawn up with considerable trouble,

* Since writing this it has struck me that some apology is due, both to our English and Indian west country rustics. Within the last few months a work ("Glimpses of the Supernatural") has been published by a well-known clergyman, the vicar of an important London parish, in which stories of witchcraft and injuries done by witches, the calling up and dismissal of spirits by magic rites, appearances of demons, demoniacal possession, and the like, are recounted with apparently full belief. In a remarkable article on "Demonolatry and Devil-dancing," in the *Contemporary Review* for February of the current year, Mr. R. Caldwell asks whether instances of demoniacal possession, such as are related in the New Testament, may not occur to-day in India and less civilised countries.

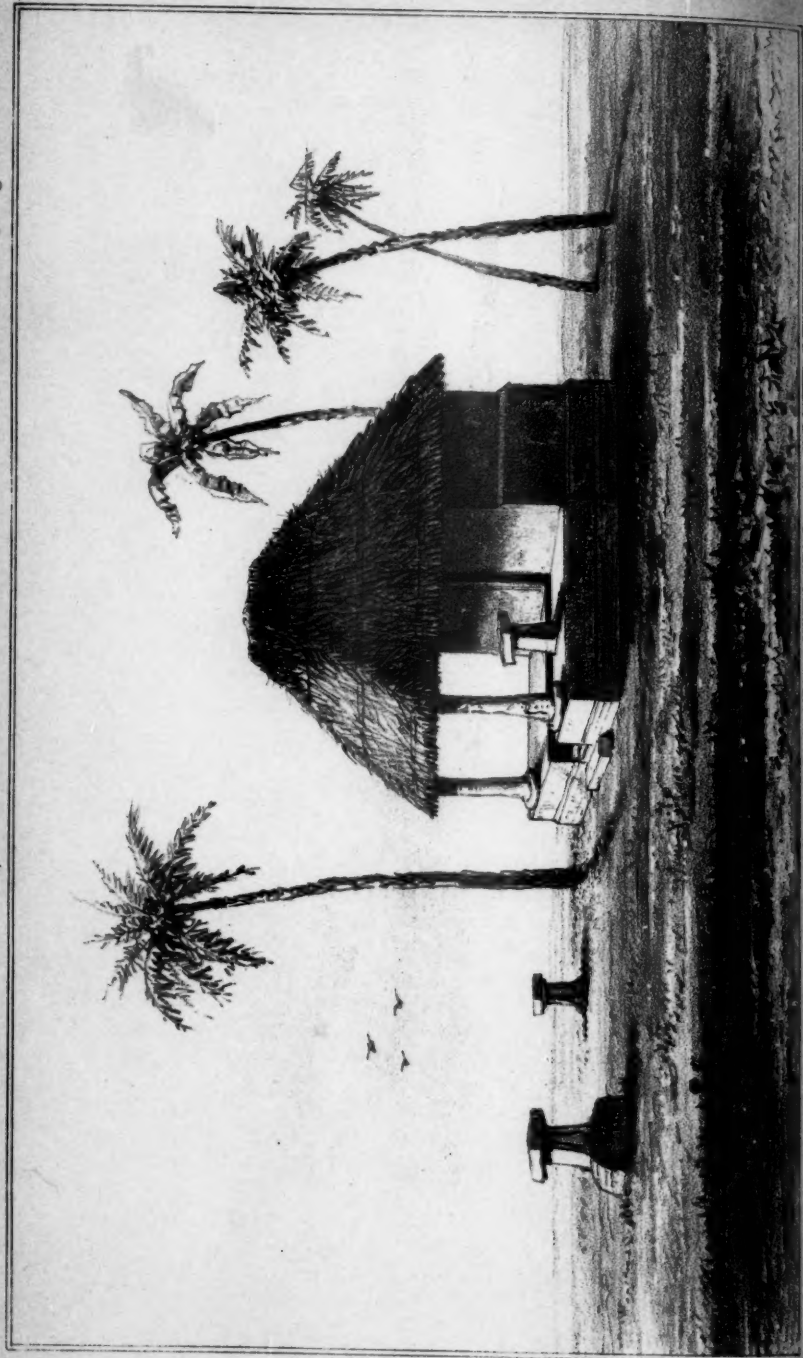
† One Bhūta is specially named Kaluruti, i.e. stone-thrower.

quite unhurt, and safely confined the same day. She said she found herself all at once at the bottom of the well, but could not in the least tell how she came there. The people insisted on showing me the well, which was about 100 yards from the house, large and square, one used for irrigation, but then dry, and from 20 to 25 feet deep. Roman Catholics are very numerous in Canara, but quite as subject to these demoniacal annoyances as the Hindus. One clerk of the Civil Court, a grave, elderly man, affirmed to me that, when passing at evening along a lane near a Bhūtastān, he encountered a dark, monstrous, shadowy shape, which grew larger and larger, on which he uttered some religious verses, when it gradually diminished and disappeared. Another story was the talk of the town, and the parties concerned assured me of its truth. Two high native officials, both Roman Catholics, were sitting at noonday in the verandah of the house of one of them, when ashes and earth came pouring in quantities from the roof. The master of the house exclaimed the Bhūta was repeating his tricks, and, bringing a gun, fired it in the air to frighten the goblin away, when instantly, as if in answer, a quantity of powder was exploded in the midst of the open yard before them, and immediately stones and pebbles were flung by invisible agency towards the house from without. These fell on the verandah, and then, my informant asseverated, went "leaping like frogs" into the house, to the great amusement of the children who had assembled, and who would cry out, "One more!" when another stone would instantly fall and go hopping in! This sort of Bhūta annoyance was declared to be not at all unfrequent. It is curious, anthropologically speaking, to observe how general this strange belief in a grotesque sort of goblin, rejoicing in a particular kind of odd, mischievous pranks, has been in widely separated countries and ages. In China such disturbances are common, and ascribed to "kitchen-gods;" in Arabia and Egypt to the jinnee or genii, who, Mr. Lane says, are believed to throw stones and furniture about in houses. He also relates that pious and learned Muslims, on locking the doors of their houses, storerooms, and apartments when going out, habitually repeat, "In the name of God, the Compassionate, the Merciful," to secure their property during their absence from the mischief and depredations of the Jinn. The Germans have a special name for such spirits, calling them Polter Geist, or racketing-ghost, and the stories about them and their impish persecutions, all much alike, current in Germany, France, and England, are endless. Amongst published accounts it is enough to mention the "Stockwell Ghost," the "Demon of Tedworth," and the extraordinary disturbances at Woodstock, commemorated in Scott's novel. Some years

ago the London papers had accounts of similar mysterious occurrences in a house in Bayswater; and even as far back as A.D. 1188 the "Itinerary through Wales" of Giraldus Cambrensis, translated by Sir Richard Hoare, mentions like stories and manifestations.

Charms or amulets against the evil influence of Bhūtas are—wearing the tooth or nail of a tiger on the neck or near the loins, or an iron ring set with pearls on the finger. In all ages and countries *iron* is sovereign against evil powers. A lime in the turban, or a figure of Hanumān, the monkey-god, engraved on any ornament, are also efficacious, especially on Sundays and Tuesdays. But the most powerful remedy must have been when, in the days of the Rajahs of Coorg, a principality bordering on Canara, it was customary for the Amildars, or native heads of divisions, to issue notices and orders to the Bhūtas, in the name of the Rajah, not to molest any particular individual, to quit any tree they haunted which was required to be felled, and to desist from any particular act or annoyance. It is stated that these behests of the Government were never disobeyed, which, indeed, is not unlikely, as the last Coorg Rajah was not a man who understood being trifled with, either by man or demon. After his deposition, the native officials continued the same style of orders, in the name of the British Government, for some time before the authorities were aware of it!

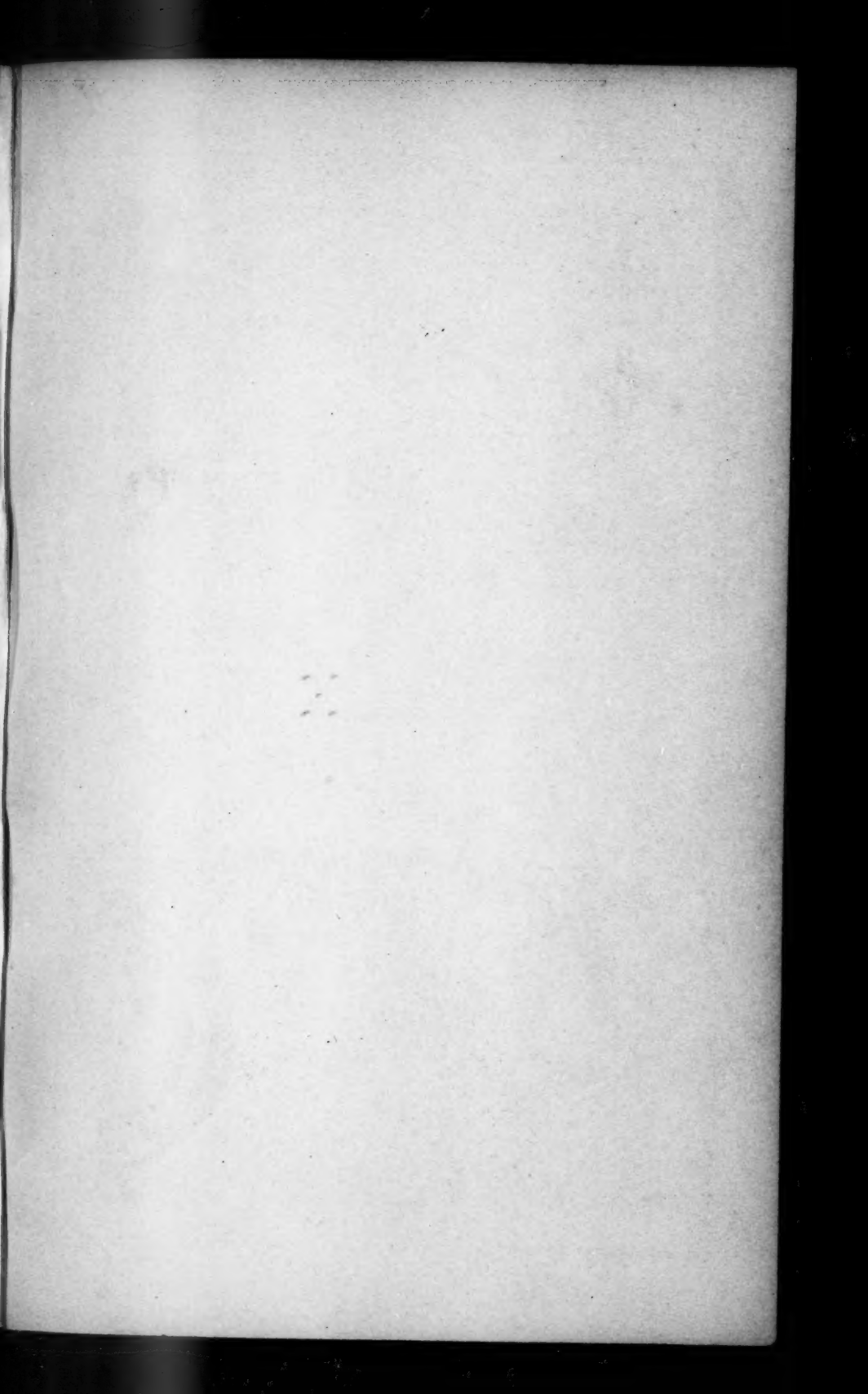
To conclude this subject, the idea is quite familiar that Bhūtas may be perturbed ghosts, "doomed for a certain term to walk the night," but longing to escape from their thralldom and be laid to rest. For the repose of any such unhappy spirit the following ceremony is prescribed:—An image of Vishnu must be engraved on a gold plate, arrayed with a yellow cloth, and washed with water from a holy stream. Around this, placed in the centre, similar images of the other principal gods must be arranged, arrayed and washed in like manner. Then a sacrifice of all manner of perfumes, and quantities of ghee and milk, must be offered, and all the funeral ceremonies in honour of the deceased gone through, and the funeral cakes offered anew in presence of the golden images of the gods. Next a banquet must be given to thirteen pure Brahmans, presenting each with a mattress, a horse, and a gold pot full of milk. Their united mantrams (*i.e.*, incantations) will then release the soul from its unclean Bhūta state and remit it to salvation. But all this seems a device of later times, invented by the Brahmans to increase their influence and the authority of their gods over the low-caste deities. It would also be a costly ceremony, and I never heard of its having been actually performed.



M. J. 16.

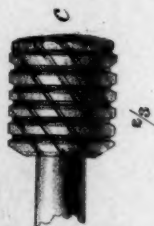
BHUTASTAN, IN SOUTH CANARA.

C. F. Kell. Nib. London.





d. d. d. Studs formerly securing a strip of silver



Part of Guard b.



Triple Pommel. a. a. a.



EXPLANATION OF PLATES XX. AND XXI.

Plate xx.—Bhūta Temple in S. Canara: from a sketch by Mr. Walhouse.

Plate xxi.—Bhūta sacrificial sword of wrought iron. A narrow plate of silver formerly covered the back, and extended a quarter of an inch on each side of the blade, where it was secured by studs or rivets, composed apparently of an alloy of silver and copper. Ornamental plates on the blade, adjoining the guard, were also, it appears, once covered with silver. The pattern chased on the half-guard, *b*, is drawn with great freedom, whilst the corresponding ornament on the half-guard, *b b*, is regular, and more or less geometrical. In the centre circle there are rectangular rays, alternating with an oval or almond-shaped ornament, the outer band being filled with twelve pelta-like forms. The pommel is peculiar, having three concave guards, and an ornamental termination to the hilt.

DISCUSSION.

Major GODWIN AUSTEN said: Mr. Walhouse's paper is of much interest; it shows how very similar are the forms of demon-worship among the hill-tribes of India. Much that we have heard this evening is common to the tribes of the N.E. frontier, viz. the Gáros, Khásis, Nágás, Duflas, &c. Their demons or spirits are innumerable; every wood, every stream, is the haunt of one, the great point of difference being that, in the N.E. frontier, they are never represented by idols or figures of any kind, nor are temples erected, as it appears is the case in the south-western side of the Indian Peninsula, where Hindu influences have acted on the older forms of religion. The only people who are not demon-worshippers are those of Bhūtan, who Mr. Walhouse has referred to, and seemed to think their name was associated and derived from ghost-worship. In this I do not agree with him. The Bhūtas are Bhuddists, and the term "Bhūt," or "Bhot," is applied even to the people of Ladak, and all the intermediate Thibetan people, also Bhuddists, so that I think the word is quite as likely derived from the Hindustani "Bhūdistān," the country of Bhudha or of the Bhūts.

Mr. MOGGRIDGE said: Mention was made of superstitious observances in our own island. I may, therefore, be permitted to bring to your notice a curious custom that not long since was still extant in South Wales and some of the adjoining counties, that of the Sin-eater. More than two centuries ago a well-known writer, Aubrey de Gentilésisme, gives a full account of this observance in Herefordshire, where he was fortunate enough to "interview" the Sin-eater himself. Among the mountains of South Wales I find a similar ceremony prevailing down to almost our own times. When a person died, the Sin-eater of the district was called in. On his arrival he

received a plate, on which he poured some salt. Upon the salt he placed a piece of bread, laid the plate on the chest of the defunct, muttered words of charmed power while bending over the corpse, then eat the bread, whereby he eat up and appropriated to himself all the sins of the deceased, received two shillings and sixpence for his services, and quickly retired from the pitying gaze of those present, who regarded him as one utterly and irremediably lost.

Mr. JEREMIAH said: I was very much interested in the paper just read. With reference to the alleged custom of *sin-eating* in Wales, mentioned by Mr. Moggridge, I would remark that the discussion raised by the Rev. D. Silvan Evans in the *Academy* (November 5, 1875) appears to have gone adrift for want of the Welsh word for *Sin-eater*. The discussion arose, as all must be aware, from a statement made by a writer in *Blackwood's Magazine* for last month, in an article on the 'Legend and Folk-lore of North Wales,' where he says, in reference to a funeral custom, that the "Scapegoat . . . is currently called a 'sin-eater.'" Dr. Evans demanded the Welsh equivalent, which the author of that article could not give, in consequence of, he says, "my ignorance of Welsh." (*Academy*, Nov. 27, p. 555.) Had he referred to Bingley's "North Wales," vol. ii. p. 278, he would have seen a way out of his difficulty, and a clear answer to the query put by Dr. Evans; and Mr. Moggridge will also see, I think, that the custom was not known as *sin-eating*, although the original meaning may have been of that nature. Bingley says, "It is usual in several parts of North Wales for the nearest female relation to the deceased, be she widow, mother, sister, or daughter, to pay some poor person of the same sex, and nearly the same age with the deceased, for procuring slips of yew, box, and other evergreens, to strew over and ornament the grave for some weeks after interment, and in some instances for weeding and adorning it on the eves of Easter, Whitsuntide, and the other great festivals for a year or two afterwards. This gift is called *DIODLYS*, and it is made on a plate at the door of the house, where, at the same time, the body is standing on a bier. It had its name from a custom, which is now discontinued (1804), of the female relative giving to the person a piece of cheese with the money stuck in it, some white bread, and afterwards a cup of ale. When this previous ceremony is over, the clergyman, or, in his absence, the parish clerk, repeats the Lord's Prayer, after which they proceed with the body to the church." It appears, then, that the custom means simply a "gift of ale or beer," and not *sin-eating*. Pennant's (in his "Tours in Wales," vol. iii. p. 159, edition 1810) account is slightly different. He says: "Previous to a funeral it was customary, when the corpse was brought out of the house and laid upon the bier, for the next-of-kin, be it widow, mother, sister, or daughter—for it must be a female—to give, over the coffin, a quantity of white loaves in a great dish, and sometimes a cheese with a piece of money stuck in it, to certain poor persons. After

that they presented, in the same manner, a cup of drink, and required the person to drink a little of it *immediately*. When that was done they kneeled down, and the minister, if present, said the Lord's Prayer, after which they proceeded with the corpse, and at every crossway between the house and the church they laid down the bier and knelt, and again repeated the Lord's Prayer, and did the same when they first entered the churchyard." This custom, and that of the alleged sin-eating, are conclusively one and the same, viz. that of DIODLYS.

Mr. EDKINS and the PRESIDENT also made a few remarks.

Portions of a skeleton found in a stone coffin, 11 feet below the surface, in Bishopsgate-street, were exhibited by Mr. John Staples.

Mr. HOOPER MAY exhibited and presented a skull found at Fulbourn under the following circumstances :—

In making a cutting through some rising ground, about half a mile on the Cambridge side of the Fulbourn Station of the Newmarket and Bury Railway, the workmen came upon three pits or wells sunk in the chalk. These pits were about three feet from each other, and were situated upon the summit of the low hill through which the cutting was made. The largest of them—that next the Fulbourn Station—was a circular shaft sunk for about ten feet in the chalk. It was carefully built up. The inner surface was smooth, and coated with a layer of hard cement, about three inches thick. Then came an outer and thicker layer of coarse concrete, about ten inches thick, which was reddened by the action of fire. At about six feet from the top, the shaft was abruptly reduced in diameter from nine feet three inches to six feet three inches, leaving a set-off or ledge twenty inches wide, and was carried down to a further depth of nearly four feet in the chalk. The inner surface of this lower and smaller portion was blackened, as if by the combustion of wood and other vegetable substances, and contained masses of black carbonaceous matter. The workmen stated that at the junction of the sides with the floor they found some slabs, placed obliquely, so as to construct a sort of flue for draught, but of this there were no traces. The upper and larger portion of the pit was filled partly by the surface soil, below which was a thick layer, two or three feet thick, of a very soft calcareous deposit, which the workmen called "butter," composed of slaked lime, containing a considerable quantity of water. By exposure to the air it became quite dry and hard. Below and by the side of this soft layer of lime was a layer of vesicular, spongy, calcareous matter, very light, and composed of pure chalk—carbonate of lime. It has not at all the appearance of having been produced by burning. At the

point of junction of the wide and narrow portions of the shaft was a round-headed opening, which led into a second excavation by a short passage about two feet six inches long. This second pit was simply sunk in the hard chalk, and was not built up after the fashion of the first pit, by boundary walls of concrete and cement. It was of equal diameter throughout its whole depth, and not narrowed at the lower portion. The sides of the opening communicating with the first were burnt and reddened. The side of the shaft, opposite the aperture from the first pit, was perforated by another similar opening, cut through the chalk, which led into a third excavation. This has been only partially cleared out; it appears to be not a circular shaft, but a cutting with parallel sides, the floor of which inclines upwards. As to the purpose for which these pits were constructed:—It is quite evident that the largest and deepest of them was used as a kiln of some kind—it could scarcely have been for burning bricks or pottery—nor was there the slightest evidence that it was used for cremation. The occurrence of a considerable quantity of slaked lime seems to prove positively that it has been a lime kiln. There is no very positive evidence as to the date of the construction of these works, but so far as an opinion can be formed by the objects found in the surface soil by which these pits were partially filled, they may be regarded as Roman. The soil which filled the upper portion of the excavations contained broken pottery, both red and black ware of Roman date, and also human and other bones—ox, horse, and a horned sheep. A good many human skeletons, perhaps as many as thirty, were discovered in making the cutting between the Fulbourn Station and the site of the excavation—about half a mile. The soil also contained abundant fragments of pottery and bones of animals. The bones have evidently been long buried, and as is usual, the crowns of the teeth in the skulls are worn very smooth.

A paper by Mr. BERTRAM HARTSHORNE, on the “Weddas of Ceylon,” was read.*

The meeting then separated.

DECEMBER 28th, 1875.

Colonel A. LANE FOX, President, *in the Chair.*

The minutes of the previous meeting were read and confirmed.

The following new members were announced:—Major H. H. GODWIN AUSTEN, Chitworth Manor, Guildford; Mrs. T. COWIE,

* This paper has been since printed in a London magazine.

12, Southwell Gardens, Kensington; A. L. LEWIS, Esq., 151, Church Road, Essex Road, N.; and ERNEST WILLETT, Esq., 33, Buckingham Place, Brighton.

The following papers were read by their respective authors :—

NOTE on a PROPOSED INTERNATIONAL CODE of SYMBOLS for use on ARCHÆOLOGICAL MAPS. By JOHN EVANS, F.R.S.

At the Congress of Prehistoric Archæology and Anthropology, held at Bologna, in the year 1871, the late Count A. Przezdziecki brought the subject of adopting some international code of symbols for denoting the various kinds of prehistoric relics upon archæological maps before the meeting, and a committee was appointed to report upon it. The matter had already been, to some extent, discussed by the archæological section of the Literary and Scientific Society of Cracow, and their report will be found at p. 364 of the Bologna volume of the Congress. Owing to the untimely death of Count Przezdziecki, the committee of 1871 does not appear to have met, and the subject was again brought forward at the Stockholm Congress of last year in an able paper by Mons. Ernest Chantre.

A second committee was then appointed, consisting of Messrs. Capellini, Desor, E. Dupont, Engelhardt, John Evans, Hans Hildebrand, Leemans, Lerch, de Mortillet, Romer, and Virchow, representing the following countries :—Italy, Switzerland, Belgium, Denmark, Great Britain, Sweden, Holland, Russia, France, Austria, and Germany. The committee held a meeting in Stockholm, when the question was fully discussed, and it was resolved to add M. Chantre to its number, and to constitute him and M. Gabriel de Mortillet a sub-committee, to settle the details of the scheme, after taking into consideration such written statements as any members of the committee might address to them. Such communications were made by Messrs. Engelhardt, Evans, Leemans, Lerch, and Romer, as also by M. Dupont, who forwarded a note from M. Van der Maelen, the author of the Archæological Map of Belgium.

The report of the sub-committee has just been completed, and I take this opportunity of bringing its contents before the anthropologists of this country.

It is divided under three heads: the maps, the signs, and the colours to be employed. The general instructions are good, as to the maps illustrative of prehistoric archæology being on a moderate scale, not too full of topographical details, unless faintly engraved, but yet giving the principal roads, and sufficient indications for finding the monuments designated. It is,










however, with the second part of the subject that we are most concerned. It is pointed out that in order to be generally adopted the symbols should be—

1. *Simple*, easily drawn, and readily visible.
2. *Well defined*, and distinct the one from the others.
3. *Special*, that is to say, not already appropriated as conventional signs on common maps. For this reason a circle is inadmissible.
4. *Universal* in their application, and bearing no relation to the language of any particular country.
5. *Mnemonic*, so that their forms call to mind the objects they represent.
6. *Susceptible of multiplication*, so that they may form a sort of alphabet with which, as occasion may arise, to create new words. With this view the symbols are treated under three heads as *radical*, *derivative*, and *complementary*.

RADICAL SYMBOLS.

These are simple in character, but sufficient to denote the principal objects of prehistoric archæology on a map, and are susceptible of slight modifications and combinations, for the purpose of giving further details or meeting fresh cases.

They are nine in number.

1. Cavern, underground dwelling, rock shelter	..	
2. Menhir, standing stone, monolith	.. ..
3. Dolmen, allée couverte	.. ..
4. Tumulus, barrow	.. ..
5. Interment, human bones	.. ..
6. Camp, oppidum, entrenchment	.. ..
7. Lake-dwelling, pile-building	.. ..
8. Find, station, dwelling (foyer)	.. ..
9. Mine, quarry, excavation	.. ..

It will be seen at a glance that these signs fulfil all the principal conditions of the case, being both simple and distinct.






The slight resemblances between those for cavern and tumulus, menhir and find, dolmen and lake-dwelling, are unimportant, and the differences between the symbols is readily recognized.

The whole of the nine are also special, and such as do not occur on ordinary maps, while they are sufficiently mnemonic to remind one of the objects they are intended to designate. That they are susceptible of multiplication will be evident when we come to consider their derivatives. In their simple condition they will suffice for maps on a small scale. Where greater detail is required, slight modifications and simple combinations will serve to convey a great amount of information.

DERIVED SYMBOLS.




1. *Radical.—Cavern.*





Caverns and underground dwellings may be either natural or artificial. For those excavated by the hand of man the symbol may be used in its simple form, open; and for natural caverns, which are usually much larger and darker, with the hollow closed. The following derivatives are suggested:—

Artificial underground dwelling	..	..	..
Natural cavern or rock-shelter	..	..	..
Artificial cavern, sepulchral	..	..	..
Natural cavern, sepulchral	..	..	..
Cavern used as a refuge	..	..	..

These are formed, as will at once be seen, by the addition of the symbol for interment, or of entrenchment or oppidum, to the radical cavern.




2. *Radical.—Menhir.*

Veritable menhir or monolith	..	..	..
Alignment, or series of menhirs	..	..	..
Cromlech or stone-circle	..	..	..

Rocking-stone.	
Cup-marked stone	
Stone with inscription or sculpture	
Legendary stone	






The alignment is symbolized by the two lines at the base; the cromlech, or stone-circle, by the semicircle of dots; the slanting transverse bar signifies a rocking-stone; the dot on the centre of the symbol a cup-marking. A thick, square base to the symbol typifies sculpture, and the obscurity which usually attaches to stones of legendary fame is characterized by darkening the sign.



3. *Radical.—Dolmen.*

Dolmen, passage-grave, &c.	
Dolmen covered by a tumulus	
Dolmen on a tumulus	

These symbols would presumably refer to the existing state of the monuments.






4. *Radical.—Tumulus.*

Simple tumulus or mound	
Sepulchral barrow	
Entrenched barrow	
Long barrow	
Barrow with wooden cist or coffin	



Tumulus with statues	..	..	..	..
Pits or depressions (Mardelles)	..	..	..	..

Some of these symbols, such as that for a barrow surmounted by rude statues, would probably not be required in Britain.

5. *Radical.—Interment.*




Simple interment, or accidental burial	..	..	..	..
Interment by inhumation	..	..	..	..
Interment after incineration	..	..	..	..
Cemetery of unburnt bodies	..	..	..	..
Cemetery of burnt bodies	..	..	..	..

To these I would venture to add—

Interment in a contracted position  reserving the symbol  for extended burials.


Some other combinations of this symbol have already been noticed. The mark of a cemetery is made by the addition of the sign *plus* +.

6. *Radical.—Camp.*







Camp, entrenchment, fortification, &c.	..	..	..	..
Associated with a barrow or mound	..	..	..	..
Dykes, lines of defence, &c.	..	..	..	..


This sign is intended to represent all places of refuge or defence, whether wholly or partially surrounded by earth-works. Its combination with the symbol for cavern has already been noticed.

7. *Radical.—Pile-building, or Lake-dwelling.*


This symbol  represents all such monuments, whether lake-dwellings, pile-works, or crannoges.

8. *Radical.—Find or Discovery.*

Of an isolated object	
Of several objects together	
Workshop or foundry	
Station or site of human occupation	
Kjökkenmödding	
Terra-mara	

The simple  symbol is conventional rather than mnemonic. Its combinations or derivatives are, however, intended to symbolize their meaning. The discovery of several objects is indicated by doubling the sign, and this for workshops or foundries is darkened. The mark for a station approaches that for a town on ordinary maps. The mound of a kjökkenmödding and the pit of a terra-mara are indicated by the grouping of the three triangles, of which two are in the one case white and in the other dark.

9. *Radical.—Mine or Excavation.*

This sign  requires no derivatives. It is suggested that it might be of service as indicating the sources from which materials found at any given spot were derived. In the case of a dolmen, for instance, in which the stones had been brought from a distance, the symbol for mine might be placed at the nearest or most likely spot from which they were brought, and connected with the sign of the dolmen by a dotted line showing the relation of the two signs.

Complementary Symbols.

These are of a simple character, and intended to complete, so far as possible, the archaeological indications on a map. They come under three categories, and relate to the condition, the number, and the age of the monuments.

Category 1.—Symbols relating to the condition of monuments. These are four in number :

1. A small circle under the symbol, to denote that they have been investigated.

2. A transverse line across the symbol, to signify that the monuments are dilapidated or in bad condition.

3. Two lines crossing each other so as to cancel the symbol. These denote that the monuments have been entirely destroyed and have disappeared.

4. A small bar, like a bend-sinister, at the side of the symbol, to denote that the monuments are false, or have been wrongly indicated or determined.

	Explored.	Dilapidated.	Destroyed.	Spurious.
Cavern				
Artificial cavern ..				
Menhir				
Dolmen				
Tumulus				
Cemetery of unburnt bodies				
Entrenchment ..				
Pile-building ..				
Terra-mara				













Category 2.—Symbols having reference to number.—These are simple adjuncts placed above the principal symbol to the right. Where the exact number is known this may be indicated by a numeral; where it is unknown, but several monuments exist, it is indicated by the sign *plus* +; where the number is large this sign may be doubled. As, for example—

	Several.	Many.	A specified number.
Artificial sepulchral caves			
Depressions			
Burnt bodies			

Category 3.—Symbols relating to the age of the monuments. —The different ages may be distinguished by printing in different colours, as will be subsequently explained. On the ground of expense, however, or for other reasons, it may be desirable to print them simply in black. In this case, the following signs are to be adopted:—

Palæolithic period	..	..	..	..	..	↑
Neolithic period	..	..	..	..	..	↑
Bronze period	..	..	..	..	..	×
Iron period	..	..	..	..	..	⦿

As a guide to memory, it may be observed that the symbol for the earliest period is the most simple, and that for the latest the most complicated. One or more such marks may be attached to each radical or derivative symbol. For instance, a cavern in which relics of the palæolithic, neolithic, and bronze ages had been found, might have superadded to the radical symbol, lines with the single barb, the double barb, and the saltire attached.

Examples.				Palæolithic.	Neolithic.	Bronze.	Iron.
Cavern							
Discovery							
Station							

When the age is doubtful, a note of interrogation may be added.

Colours.

The use of complementary symbols to indicate the age of monuments, though simple and easy, has the disadvantage of complicating the principal signs, and of overcharging the maps with hieroglyphics. It is therefore better, where possible, to employ colours, as originally recommended by M. Chantre. Colours have also the advantage of rendering all the monuments of one age visible together at the first glance at a map. After carefully examining the advantages and drawbacks attaching to

various tints, the authors of the report recommend the adoption of the following:—

Palæolithic age	..	..	Brownish yellow.
Neolithic age	..	..	Green.
Bronze age	..	..	Red.
Iron age	..	..	Blue.

The green and the blue should be such as cannot be confounded with one another when seen by artificial light.

It is mentioned that the colours blue and red were assigned long ago by the Egyptians to the metals iron and bronze, weapons of these metals being painted in these colours by Egyptian artists. As to the colours for the two ages of stone, the ochreous tint of many palæolithic implements, and the green jade of which some of the finest polished celts are fashioned, may assist in recalling them to mind.




Such, in brief, is the report of Messrs. Gabriel de Mortillet and Ernest Chantre, and there can, I think, be but little doubt that the code of symbols recommended by the committee, of which they are the representatives, will be largely adopted on the Continent in maps illustrative of prehistoric archæology. They are brought under the notice of those who in this country are interested in prehistoric questions, in the hope—1st, that when any maps are prepared on which the use of such symbols is desirable, it may not be forgotten that a carefully prepared code is already in existence; and, 2nd, that those to whom we are indebted for so large an amount of trouble bestowed on its preparation may meet with some reward in seeing their labours bear fruit in this as well as the other civilized countries of the world.


DISCUSSION.

MR. FRANKS took the opportunity of stating that, as reference had been made to the Prehistoric Congress at Stockholm in 1874, he regretted to have to inform the Institute that he had just heard from Stockholm that the volume of Transactions of the Congress, of which 832 pages were in type, had been totally destroyed by a fire at the printers. The reprinting is to be immediately commenced, and will, it is hoped, be completed by May next.

The PRESIDENT thought that, upon the whole, the proposed code of symbols combined simplicity with clearness as well as any that could be suggested, and he hoped they would be adopted. There were some slight omissions, however, which might be easily remedied. For example, there was no radical sign for the important class of prehistoric habitations. The sign for "find" or for prehistoric "station" did not necessarily imply that the remains of dwellings were to be found there. The following symbols, he thought,

would meet the case without interfering with those given in Mr. Evans's paper, viz. :—

Prehistoric dwelling	{	above ground	
		half underground, or pits	
or chamber ...	{	underground chamber or artificial cave	

Then, again, although there was a radical for a defensive work, there was none for earthworks of a non-defensive character, which were common in all parts of the world. He thought that the annexed symbol might be employed in conjunction with any other symbol to denote that a work was defensive ; whilst the

symbol employed in the paper for "camp or defensive work" might be used merely to designate "earthwork." If the code obliged us to mark all earthworks as defensive it would lead to error.

Mr. EVANS, in reply, observed that one of the features of the proposed system of symbols was, that it gave a series of radical signs which were susceptible of modification to meet any special cases. No doubt any map on which the symbols were adopted would have some index appended, in which any special modifications would be explained. In the short paper which he had read he had not entered so fully into detail as did the original report in French, a copy of which he begged leave to present to the Institute.

RHABDOMANCY and BELOMANCY, or DIVINATION by the Rod and by the ARROW. By A. W. BUCKLAND, M.A.I.

It cannot, I think, be denied that divination in some form has been practised by every nation, civilised and uncivilised, with which we are acquainted. It doubtless had its origin in the world's infancy, when men began to see in natural objects things incomprehensible, and were led by dreams and visions to a belief in the supernatural, and by a further step in the same direction, to associate the spirits of the departed with things animate and inanimate. Hence arose an elaborate system, divided into numerous branches requiring as its exponents trained men skilled in the deep mysteries of nature, and admitted to a knowledge of those dexterous juggleries whereby natural phenomena were made to assume awful and threatening aspects in the eyes of the ignorant and superstitious multitude, in order the more securely to maintain that authority obtained by a reputation for supernatural power. Thus the magicians of Egypt, the astrologers of Chaldea, the magi of Persia, the augurs of Etruria, Greece, and Rome, the Druids of Gaul and Britain, all diviners, exercised probably more real power than the kings and chiefs of their respective countries, who were

commonly only the ministers of the will of the gods as interpreted by their priests.



To treat of divination as a whole in a single paper would be obviously impossible; for it will be observed that almost every nation adopted some special mode of divination as peculiarly sacred, not, however, to the entire exclusion of others, which may have represented the superstitions of an earlier aboriginal population. I have, therefore, selected for investigation two branches of this wide subject, believing that in their extensive range and singular affinities will be found interesting matter for anthropological inquiry, whilst the survival of one of them in our own country to the present day is a curious instance of the durability of superstitions, notwithstanding the advance of education and civilisation; nor will the portion of our land in which this relic of the bygone faith of ancient days yet lingers be deemed wholly devoid of significance by ethnologists.

Among the Mendip Hills, in the old mining districts of Cornwall, and, I believe, also in Derbyshire, Rhabdomancy pure and simple still exists and flourishes. About two years ago I witnessed the performance of an expert who had been summoned from the Mendips, at considerable expense, to find a spring of water in a garden, about three miles from Bath, by means of the divining-rod. Cutting a forked branch from a green tree, and holding one end of the fork in each hand, he walked over the ground, holding the stick before him, the ends pointing towards the earth; but when he arrived at a spot where, as he said, water might be found, the stick raised itself and turned over in his hand with such force as sometimes to break itself. A well was dug on the spot where these indications were the most marked, and I need not say that water was found, although not in the abundance which the violent behaviour of the rod would seem to have promised. The diviner, or *dowser*, assured me that not one in a thousand had the power of thus using the rod, and I certainly tried it myself in vain; but whether there is in reality some mysterious force in certain persons communicated through the hands to that which is held in them, or whether the effect is produced by dexterous manipulation, I must leave others to judge. Reports have from time to time been given of certain persons who have performed wonders by this mysterious power. Lady Milbanke is said to have convinced a Dr. Hulton, who had written a pamphlet against the superstitious practice, by discovering a spring of water in his own garden by the rod. There can be no doubt of the belief of the Cornish and Mendip miners in its power. Mention is made in Migne's Dictionary ("Sciences Occultes") of a young man who found gold hidden in the earth by a violent emotion.

which he experienced when walking over it; and Dr. Carpenter mentioned to me the case of a youth who seemed to be similarly endowed, but who failed to discover a mass of plate hidden in a field with great precautions, as a test. The conclusions, therefore, of this astute observer are, that where every kind of suggestion has been rigidly excluded, the failure has been complete; and that the instances of success are to be accounted for (where no fraud was practised) by guesses on the part of the performers themselves, or by the unintentional promptings they have received from the bystanders who are in the secret. And he seems to incline to the belief of the French *savans*, that the movement in the rod is due to the tension of the muscles held long in one position, resulting in involuntary motion.* But in the instance I have recorded, the stick had certainly not been cut from the tree five minutes, nor held in the hand one, when the movement was produced, either by some act of jugglery, or by some mysterious force at present unexplained. The "expectant attention of the performer" was recognised by MM. C. Nevreuil and Biot as the cause of the movement. Some pretenders to the art, as the notorious Jacques Aylmar (1692) have been proved to have been impostors, but for particulars of these I must refer the curious to the pages of *Notes and Queries*, to the works of Pierre Lebrun, Baring Gould, and others, my object in this paper being not so much to analyse the possibility of the alleged power as to trace the origin of a wide-spread belief. All writers who have treated of rhabdomancy, or divination by the rod, are united in assigning to it a very high antiquity; they generally trace its origin to the Scythians, and say that from them it passed into Assyria, Palestine, Greece, Etruria, Rome, and, by another route, through Russia and Germany to England. They identify the divining-rod with the miracle-working rod of Moses and Aaron, the Caduceus of Mercury, the wand of Circe, and other magicians; and the lituus of Romulus and Numa Pompilius, and in all the wonders related of it may be traced some connection with one or other of these famous miracle-working wands; for the divining-rod was employed not only to discover water-springs and metals, but also to mark out boundaries, to discover corpses, and to bring to justice murderers and thieves. In the discovery of water, its affinity was with the rod of Moses, who, by striking the rock with the rod, caused water to gush forth. But the remaining qualities assigned to it seem to have more especial reference to the Caduceus of Mercury, which was the golden rod of wealth, and was used to conduct souls to Hades,

* See Article "What to Believe," by Dr. Carpenter, *Quarterly Review*, vol. xciii. p. 601. 1863.

whilst Mercury, in his character of Hermes, was especially the god of boundaries and of thieves, having himself been a thief, even from the day of his birth, when he rose from his cradle to steal the cattle of Apollo. In the power assigned to the divining-rod of tracing boundaries, we see its affinity not only with the rod of Mercury, and that of the older Egyptian Thoth or Hermes, who taught the Egyptians to measure their fields, but also with the lituus of Romulus, used by him to mark out the various regions of Rome, and which was afterwards laid up in the temple of Mars as a most precious relic. "Plutarch says that Romulus was very religious and very clever in divination, and for this purpose made use of a lituus, which is a bent stick."*

It may be supposed that with the numerous properties assigned to the divining-rod different forms and different substances would be employed in its manufacture. Thus we find that although the most general form was that of the letter Y, with the lower limb more or less elongated, the reason assigned for the use of this form being, that it is supposed that the hands convey some virtue to the rod; yet sometimes a straight stick was employed, or one cut straight in the centre with a branch at each end, , and sometimes the forked branch was cut close to the fork, , whilst frequently several rods were used together. Hazel was the wood generally most esteemed, but the almond, the willow, the ash, or some fruit-bearing tree had each many advocates. Some argued that in searching for metals rods of metal should be used, or that, at least, the wooden rod should be tipped with metal, and it was commonly believed that it would only turn for that particular object in the search for which it was employed, to ensure which result it should be first touched with that substance which it was expected to discover. In using them sometimes a prayer was said, or sometimes a cross was engraved on the rod. Lebrun† describes four old divining-rods found in Paris, on which were inscribed the names of the three Magi, Baltazar, Gaspar, and Melchior. In the laws of the Frisians, after their conversion to Christianity, permission was given to use divining-rods in proving homicide, and the ceremony was performed in church before the altar. Two twigs, one marked with the sign of the cross, were covered with clean wool and laid upon the altar or the holy relics, and a prayer made that God would, by a sign, discover the guilty.‡

In considering the origin of the supernatural qualities assigned to the divining-rod, we cannot fail to observe its obvious connection with the use of a rod or staff, either plain or variously

* Lebrun, Tom. ii. p. 394.

† Lebrun, Tom. ii. Book 7, p. 636.

‡ "Archæologia," vol. xlii.

ornamented, in all ages and in all countries as a symbol of authority. The sceptre of modern monarchs has its prototypes in ancient Egypt, in Peru, and even among the relics of the unknown prehistoric cave-dwellers of France and Britain; for archæologists believe that the stag's antlers perforated with one or more holes, and often engraved with various figures, which are sometimes found in the caves explored, are the sceptres or wands of office of those primitive people; and it seems to me not altogether improbable that the branching horns of the stag, used in former times as a token of the power possessed by the chief of a tribe, may have suggested the form of the divining-rod. Certain it is that horns of various kinds were used in the very earliest times to symbolise power, and hence were frequently chosen to adorn the heads of gods. The figure most suggestive of the use of the horn as a symbol of dignity in Gaul and Britain is that dug up, I believe, in Paris, and engraved in the "*Pictorial History of England*." It represents a robed man, the head adorned with horns, which may be either single-branched stag's horns or forked sticks, and beneath is the inscription, "*Cernunnos*." The peculiarity in this figure is that the horns have upon them several rings strung upon a larger one. Now we are told by Philostratus* that "the Indian Brahmins carry a staff and a ring, by means of which they are able to do almost anything." The images of Vishnu commonly represent him as twirling a ring on the finger of one hand, whilst on the cylinders of Babylon the forked and branched wands borne by priests or monarchs are frequently adorned with rings. In all magical ceremonies the first step was to draw a circle with the magic wand. The Assyrian goddess Hera, figured by Layard, bears in one hand a rod surmounted by a circle, and in the other one with a crescent; and it is a curious coincidence that in the rock sculptures of Peru, as given in Hutchinson's work, a human figure appears bearing a rod to the end of which a ring is attached, whilst another rod of the form of a bifurcated stick, is represented on the same rock, having a bird perched upon it, thus evidently connecting it with augury. "The bifurcated stick," says Tyndale,† in his book on Sardinia, "must have been an important symbol, it appears in Etruscan tombs and on Babylonian cylinders." "In the coins of Cyprus the columns of the temple of Venus are represented with bifurcated capitals, and the Pythagorean V, the symbol and emblem of human life, might perhaps also be considered an analogous character." To these may certainly be added the standards of the ancient Egyptians, as given by

* "*History of Magic*," p. 210.† Tyndale's "*Sardinia*."

Wilkinson (vol. i. p. 294), upon which the same form of the branched or bifurcated stick appears ; indeed, the rods borne by Egyptian gods or priests are almost always forked at the lower end, whilst they bear on the top either a lotus-flower or the head of some sacred animal, most commonly that of the sacred jackal, and it is worthy of remark that the same animal was also sacred in Mexico, where it has been found buried with care.*

If we turn to the representations of the divinities of Greece and Rome we find them all bearing rods typical of their several attributes, and amongst them the ring and staff and the bifurcated stick are conspicuous, that which I take to be an early form of the Caduceus, given in Smith's Dictionary as from a painted vase, represents these two forms combined, whilst in that assigned to Pluto the origin from the head and horns of an animal may readily be traced. Two singular survivals, illustrating the use of a forked stick in divination and lots, and connecting it also with that which, I believe, to be the earlier form, that of the horn, and also with augury by birds, may here be noted. The first is, the use still made by young people of the merrythought or wishing-bone of a fowl, the form of which is that of the divining-rod and also of the branching horns of the stag ; this, pulled asunder, denotes good luck to the one in whose hand the larger portion remains, and being again drawn as a lot, gives a wish to the fortunate drawer of the lucky portion, the belief in the peculiar luckiness of this bone being evidently derived from the ancient use of the cock in divination. The second survival I would notice is the use of the first and fourth fingers of the hand, extended so as to form a figure strongly resembling the rod of Pluto, as a charm against the evil eye. I do not know whether this form, which is called "making horns," is still employed in England, but it is commonly used in Italy, and considered so potent a charm that it is made by stealth whenever the Pope passes, who is believed to be possessed of the evil eye.

The form of the rods of Moses and Aaron are not defined, but from the budding of the latter, it was probably a branched stick of almond. There is a passage in Hosea (iv. 12), "My people ask counsel at their stocks and their staff declareth unto them," which is given by Jerome, Cyril, and other commentators, as well as the Septuagint, as referring to Rhabdomancy among the Hebrews, who are said to have learnt the art in Babylon ; and it is suggested that perhaps at the same time

* Tylor Anahuac.

they consulted both the rod and an idol, the figure of some god being engraved on the rod.*

The use of divers rods in divination would soon cause them to be regarded as possessed of inherent power, hence we find innumerable instances given of miracles wrought by the rod. It is evident that some veneration existed in the mind of Moses for the rod which became a serpent, and wherewith he smote the rock; and that of Aaron, which budded and produced almonds, was laid up in the ark with superstitious reverence. When Elisha was applied to for the restoration of the dead son of the Shunamite, he sent Gehazi to lay his staff upon the child's face, as though in that resided life-giving power, and this belief in its miraculous and curative properties extended to mediæval times. In Lebrun's "*Histoire des pratiques superstitieuses*," page 367, we find "Borel relates of the physician Laigneau, that he made use of no other remedy than a rod of hazel to cure broken bones; he cut little hazel wands when the sun entered the sign of the Ram, and having sealed the two ends to keep in the virtue, he only rubbed the contusions with one of these rods and the bones were restored to their places as if by enchantment. The same doctor also prepared rods of ash at the conjunction of the sun and moon in the sign Aries, and by a touch with them cured hæmorrhages." Lenormant† points out the extreme development of this superstition among the Fins; thus, "Whatever might be the power of those enchantments which controlled nature and supernatural beings, spirits, and gods, there is a talisman still more powerful, for it arrests their effect, and protects from it those who possess it; it is the 'celestial rod' (*bâton céleste*), analogous to the divining-rod of the Magi of Media. The gods themselves can only be secured against certain enchantments by virtue of this rod. Wainämöinea, menaced by the chief sorcerer of Lapland, replies to him, 'The Lapp cannot injure me by his enchantments, for I have in my hand the celestial wand, and he who hates me, he who creates mischief, does not possess it.' " When the magician traced with his wand a circle on the ground, as was commonly done in all magical ceremonies, it was doubtless to signify the power he possessed by virtue of the rod over the god supplicated. Hence the circle, which everywhere represented the sun, became united with the rod to form a magical symbol, and the same was the

* Bancroft says:—"The merchants of Mexico had a god called Zeacatecutle, the god who guides. The principal image of this god was the figure of a man walking with a staff. Practically, however, every merchant revered his own staff as the representative or symbol of this god." "*Native Races of the Pacific*," vol. iii. p. 416.

† "*Les Sciences Occultes, en Asie*." Lenormant, p. 221.

case with the crescent, signifying the moon, represented in its earlier form by the bifurcated stick; thus when we find these figures carried out in stone circles, grave-mounds, and tumuli, as notably at Stonehenge, and among the Sepoltura dei Giganti in Sardinia, we may reasonably assume them to have been created by the worshippers of those gods whose symbols they represent.

Veneration for the rod would naturally lead to the same feeling for the tree which produced it, hence in almost all civilised lands we have legends of trees to which miraculous virtues are ascribed. The oaks of Dodona and of the Druids, the ash of Scandinavia, America, and Britain, the fig tree of India, are examples of this; but there is something unexplained in the peculiar power ascribed to the hazel, from which preferably magicians' wands were made. This is supposed by some to arise from its faint resemblance to the almond, from which the rod of Aaron was taken, or according to others, because it was the wood used by Moses to sweeten the waters of Marah; but that a peculiar sanctity was attached to the hazel and its fruit, in lands where Moses and Aaron were quite unknown, and long prior to the introduction of any Jewish or Christian tradition, is evident from the frequent discovery of hazel-nuts in prehistoric graves, not only in this country but even in Peru.*

Lebrun gives the following prayer or incantation, used at the cutting of divining-rods, which certainly savours strongly of worship:—"Hazel, I break thee, and conjure thee, by the virtue of the Most High God, to show me where may be found gold, silver, or precious stones. I conjure thee to show me that thou hast as much virtue as the rod of Moses, which he made into a serpent. I conjure thee to show me that thou hast as much power as that of Aaron when he led the children of Israel across the Red Sea. Thus I break thee, hazel, at this time, in order that thou mayest discover to me that which is hidden, in the name of God," &c.† Although the almond furnished the rod of Aaron, that of Moses, called the rod of the prophets, was cut, we are told by Adam, from a myrtle of Paradise, and was given to him by Shoaib, the father of Zipporah, to whom it had descended, in order to drive away the wild beasts from his flocks.

Belomancy, or divination by arrows, existed side by side with rhabdomancy in many countries, and has often been confounded with it. In fact, they seem to be very closely connected, the history of their origin being almost identical, for whilst the divining-rod is traced to the golden rod given to

* See Hutchinson's "Two Years in Peru."

† Sale's "Koran," cap. 28, p. 319 (*note*).

Mercury by Apollo, the divining-arrow, which was also of gold, was given by Apollo to a mythical personage named Abaris, who is said to have come from the land of the Hyperboreans to Greece in the time of Pythagoras, in consequence of a terrible pestilence, which could only be remedied by offerings to Apollo made in Athens for all nations. Abaris, the Hyperborean, was the ambassador from his own country, and he then received from the god this magic arrow. By means of this arrow Abaris could transport himself instantaneously over land and sea as on a horse. Mercury is also said to have used the Caduceus in this manner, so that it may well be that Abaris is but a later form of Mercury, and that in the rod of the one and the arrow of the other we see the origin of the witch's broomstick. It is, at all events, matter of history that arrows marked with certain signs were used in divination among the Scythians, Chaldeans, Arabs, and, Tacitus ("Germ." 10) says, among the Germans also. In a book recently published* we find the superstition embedded in a tale which is said to be widely current in the east of Europe, and exists also in the collection of stories of the Turkish races in South Siberia, edited by Radloff. According to this tale, "when the hero, who has descended into the lower world, and has been left there by his faithless companions, saves a brood of eaglets from a dragon, he is eaten up by the hasty mother eagle on her return. But, as her eaglets weep at the sight, she spits him out again. In the end he calls upon his treacherous comrades to join with him in shooting arrows straight up into the air by way of ordeal. His arrow strikes the ground before him, but theirs fall back upon their heads, and they die."†

Lebrun says, quoting from Thevenot's "Voyage in the Levant," that "among the Turks people may be seen seated on the ground with a number of books spread on the ground round them. They take four arrows cut to a point, and place them in the hands of two persons. Then they place upon a cushion a naked sword and read a certain chapter of the Koran, during which these arrows fight together, and victory is divined to the party after which the victorious arrows are named, and they never go to war without trying this mode of divination." The Koran probably refers to this in the chapter which says, "O, true believers, surely wine, and lots, and images, and divining-arrows are an abomination of the work of Satan; therefore avoid them that ye may prosper."‡ In the preliminary discourse (p. 127) we are told that the arrows used for this purpose were like those with which they cast lots, being

* "Gipsy Folk Tales," von Dr. Franz Nuklosich.

† *Academy*, July 10th, 1875.

‡ Sales "Koran," v. p. 94.

without heads or feathers, and were kept in the temple of some idol, in whose presence they were consulted. Seven such arrows were kept in the temple of Mecca, and were found in the hands of Abraham and Hobab by Mahomet; but generally in divination they made use of three only, on one of which was written, "My Lord hath commanded me;" on another, "My Lord hath forbidden me;" and the third was blank. Divination by means of arrows was practised by Nebuchadnezzar (Ezek. xxi. 21), and Potter tells us that this superstitious practice of divining by arrows was used by the ancient Greeks and other nations.*

There would appear to have been a certain amount of sacredness attached to arrows among the Mexicans, although it is not stated that they were used in divination, for Bancroft† says of the festival of the month Quecholli, dedicated chiefly to Mexcoatl, god of the chase, "Canes were gathered and carried to the temple of the god of war. There young and old assembled for four days to share in the sacred work of making arrows. The arrows were all of uniform length, and were formed into bundles of twenty, carried in procession to the temple of the god, and piled up in front of the idol."

The description given of the divining-arrows serves to connect them with the very smooth, straight sticks which the Alani women are described by Herodotus (iv. 67) as gathering and searching for anxiously, and also with those bundles of myrtle sticks with which the Persian magi, according to Strabo (xv. cap. 3, p. 136), touched their sacrifices, holding them in their hand during their prayers and incantations. These twigs were also held before the perpetual fire on their altars as an act of worship, and there is a very obvious connection between both these and that very ancient and well-nigh universal practice of casting lots.

Among the Anglo-Saxons lots consisted of pieces of wood from a fruit-bearing tree, which were cast into a white cloth, and this mode of divination, or casting of lots by means of the twig, or tan, as it was called, was common to all northern nations, derived, it is said, from the Scythians. But that which will be of especial interest to the ethnologist is the fact that at the present day the Hottentot children cast lots by twigs as our Anglo-Saxon ancestors did—that is, if a thing is lost or a theft has been committed, they throw bits of stick and judge of the culprit, or of the direction wherein the lost property is to be found, by the arrangement of the twigs, and among the Kaffirs bundles of sticks and assagais are employed by the diviners in their rites for the discovery of crime. Among the South

* Potter's "Antiquities of Greece," vol. i. p. 334.

† Bancroft's "Native Races of the Pacific," vol. ii. p. 335.

African peoples also two bones are still used in casting lots, being evidently the primitive form of dice, which can be traced back in their present form to a very remote antiquity, and which, as well as the divining-rod, are connected by legends with Mercury.

But probably the most important and significant fact connected with the use of rods, twigs, and arrows in divination is their very evident bearing upon the ancient alphabets. It is impossible to look at the primitive alphabets, such as the Phœnician, the Etruscan, and the Runic without being struck with their resemblance to twigs or branches of trees differently arranged.

That a very intimate connection subsisted between the arts of divination by rods or arrows, the casting of lots, and the primitive alphabets cannot, I think, be doubted. It is a significant fact that just in those regions of Asia where arrows were principally used in divination, there we find the cuneiform or arrow-headed characters in use. It would appear to me that both divination and the primitive alphabets originated with that very early semi-civilised race which seems to have spread over the whole world prior to the rise of Aryan supremacy, being generally, although perhaps not very correctly, denominated Turanian, and which, by whatever name it may be designated, has certainly left traces in the language, religion, and customs of almost all nations quite alien to Aryan culture. This race cannot, I imagine, be traced to palæolithic times, but seems to have everywhere superseded the users of rough stone implements, introducing polished stone weapons, and probably at a later period supplementing these by copper tools and a knowledge of the precious metals. For the Aryan races was probably reserved the discovery of bronze and iron, but that the earlier peoples had made considerable progress in the arts of civilisation before the invention of these, cannot be doubted. The first traces of this civilisation in Europe may, I believe, be found in the neolithic caves of France and Belgium and the Swiss lake-dwellings, in which, even where metal is absent, there is abundant proof of a knowledge of agriculture, of the use of garments and ornaments, and of a style of art scarcely to be designated as rude. Perhaps there also may be seen the first germs of that art of divination which is still so rife among non-Aryan races, in the perforated and ornamented horns, which may have been bâtons of command, as already pointed out. That to this primitive people, however they may be designated, may be attributed the invention of letters, or, at least, of those symbolic forms which later became letters, was a conclusion at which I had arrived before I had the honour of

laying this paper before the Anthropological department of the British Association at Bristol, but I had not then had an opportunity of reading Lenormant's work upon the subject ("*La Magic chez les Chaldéens et les origines Accadiennes*"). The perusal of this work has amply confirmed my views, since he traces the arts of divination, and especially the use of the *bâton céleste*, or divining-rod, to an underlying Turanian population in Chaldea, Persia, and among the Esquimaux, and says of the cuneiform characters:—"We know with certainty that it was by the Turanian portion of the population that cuneiform writing was introduced into Babylon and Chaldea. The characters are susceptible of two uses—at first the rude drawing of the symbolic image, and afterwards the abstract idea explained by the syllable composing the phonetic value, not in the Assyrian language, but in Accadian—that is, in the idiom of the Turanians of Chaldea. The 180 primitive cuneiform characters also bear testimony to the fact that the Accadians came from another and more northerly region, where the great carnivora and palms were unknown, and confirm the traditions of the people, which relate that their ancestors came from quite another country, the name Akkad signifying mountaineer."* But the race which M. Lenormant thus credits with the introduction of magic and the art of writing, as well as metallurgy and other useful arts, and which he believes may be traced, both linguistically and by customs, over the greater part of Asia, and, in prehistoric times, over Europe also, seems to me, by the same process of reasoning, traceable not only in those portions of the world, but also undoubtedly in Egypt and among the civilised nations of America. Bancroft gives many instances of a divination similar to that of the Accads. He says: among the Zapotecs "each form of divination was made a special study. Some professed to foretell the future by the aid of stars, earth, wind, fire, or water; others by the flight of birds, the entrails of sacrificed victims, or by *magic signs and circles*."† It would appear to me evident that, in some cases at least, the magic rods carried by the gods and by their priests originated the primary symbolic alphabets, which seem always to have had a sacred character. Whether any of these can be traced to the stone age is perhaps doubtful: M. Lenormant, in giving to them a Turanian or Accadian origin, and assigning to them an immense antiquity, does not carry that antiquity into the stone age, for he attributes the invention of the metallurgic arts to the same people, even as I had previously done upon different grounds; and northern archaeologists do not suppose that runes existed before the age of iron,

* "*La Magic chez les Chaldéens.*" Par Francois Lenormant; pp. 284-286.

† "*Native Races of the Pacific*," vol. ii.

believing it impossible to have made carvings in stone without the aid of that metal. Nevertheless the rock sculptures of Peru, and others recently discovered in French caves, prove conclusively that such work can be done with implements of copper, or even of stone.* Perhaps the introduction of Woden and Mercury into the legends relating to their invention would confirm the conclusions of Scandinavian antiquaries, but, even allowing that the runic alphabets were introduced by Aryan iron-workers, it will, I think, be conceded that they took for those alphabets signs already well known as symbols of some particular god, or of some natural object; and it must not be forgotten that Woden and Mercury were but Aryan names for a pre-Aryan divinity, even as the arts of magic and divination, of which they were the patrons and supposed inventors, can also be traced to a pre-Aryan epoch, as has been so ably done by M. Lenormant. There can be no doubt that magic is repugnant to Aryan ideas of civilisation, and we find it condemned alike by the laws of Manu and of Moses, as well as by later lawgivers; nevertheless it continues in full force among Turanian peoples and among primitive uncivilised races.

Even in China, Huc says, "the second religion is regarded as that of the *ancient inhabitants*; the priests and priestesses are celibates, and practise magic, astrology, necromancy, &c." Almost everywhere, in fact, these arts may be traced to an aboriginal population, despised as outcasts by the conquering races, yet dreaded for their supernatural power. It cannot be doubted that the art of divination is of immense antiquity, and as the author of the article on 'Divination' in the "Encyclopædia Metropolitana" says: "It seems impossible to assign its origin to any period below the immediate influence of primæval tradition;" and there certainly appears to me some reasons for tracing its origin to the prehistoric cave-dwellers, for the laboriously cut holes in the stag's-horn sceptres before-mentioned have evidently some symbolic meaning, and the traces of magic rites carried on with so much singular uniformity of detail in all uncivilised countries at the present day, and in civilised lands among the aboriginal and outcast portions of the population, seem to prove that these rites originated in that far off period when man had not yet spread himself over the surface of the globe; that, retained in the primitive form among uncivilised races, these rites became developed into an elaborate system in the ancient civilised nations of the world, being blended with, and in fact forming the basis of, their religions, as in Egypt, Chaldæa, Media, Etruria, China, India,

* See *Anthropological Journal*, April, 1875, p. 357.

and Peru, but declining with the advent of the Aryan races, although tolerated in Greece and Rome, and even by Charlemagne, the cross which had from time immemorial served in all countries as a magic symbol significant of power over the elements, and particularly over water, being retained as a sacred Christian sign, and as such used to sanctify the old heathen superstitions, which could not be eradicated from the minds of those who, by descent or by familiar intercourse, may be supposed to have retained a certain amount of affinity with the older races. It is thus that we see faith in the power of the divining-rod surviving among the rustics of Somerset and Cornwall, whilst the casting of lots in some form has a still wider range, having charms probably for many highly educated people. Among the gipsies soothsaying and magic are still in full force, and the belief in ghosts and spirits and in second sight has not yet died out in Scotland and Ireland, nor, if we may credit the papers, has the belief in witchcraft yet become extinct in England.

These remnants of old superstitions cannot fail to be of interest to anthropologists. Their universality seems to prove the unity of mankind. Their retention in spite of the advances of civilisation and the prohibitions of Christianity serve to show how deeply rooted is superstition in the human mind; and, if I am not greatly mistaken, their peculiar prevalence in certain localities may be traced to a greater amount of aboriginal blood remaining in those localities. It is, I believe, a matter deserving of investigation whether the older races do not really possess a power which modern science has hitherto failed to define or to account for. It certainly appears to me, that after making every possible allowance for trickery, the effects of imagination, and of religious excitement, there yet remains a substratum of fact in the marvels related of the old magicians of Egypt and Chaldæa, and in those of their modern representatives in India and elsewhere, as well as in the use of the divining-rod in our own land, which has never yet been satisfactorily explained. It may be that a certain temperament renders the owner more susceptible of magnetic influences, which susceptibility may be inherent in certain races, and more powerful the nearer those races approach to the inferior animals; for it can hardly be doubted that the lower animals are more alive to atmospheric influences than man is. This, however, is perhaps, strictly speaking, a psychological subject, but I feel convinced that it is one which will more and more command the attention of anthropologists also, when engaged in the solution of that most interesting problem, the origin of the human race.

DISCUSSION.

Mr. MOGGIDGE mentioned that he had in Cornwall, some years ago, visited copper mines in a district where the belief in the powers of the divining-rod was held by a very large number of the educated classes, and was told by a gentleman there of a case where the presence of copper or water was at once detected in a hall where the test was prepared and all collusion prevented. Another case at Mentone was also adduced.

Dr. SPRATT was of opinion that a belief in divination by the rod and by the arrow was always accompanied by good grounds for the same. He mentioned cases of persons suffering from rheumatism and neuralgia who were able to trace water by the sensation of damp. He also considered that there are evidently certain nerves connected with the brain that appear to become more active if overpressed with local irritation, and if some are lost, as the sight or the power of hearing, their loss is partially made up for by the other nerves becoming more active.

Mr. IVER MACDONNELL quite agreed with the remark in Miss Buckland's paper, that "it would appear as if some special peculiarity existed in those persons with whom the divining-rod acted," and mentioned a case which he had witnessed, in which a person claiming to have a sense of the presence of water, had given proof of his ability in this respect. In another case a French lady, introduced by the late Archbishop of Dublin, Dr. Whately, had controlled the movements of a compass.

Mr. PIDGEON considered that the antiquity, use, and probable origin of this extensive form of superstition should be discussed, rather than the credit to be assigned to any West country story of wonders effected by divination. He also referred to a case of unsuccessful divination by the arrow in Virgil's "*Æneid*," Book v. l. 485.

Miss BUCKLAND, in replying briefly, regretted that the discussion should have taken so decidedly a *psychological* turn, as the chief aim of her paper was to prove the antiquity of the use of the divining-rod, and not the reality of the supposed power claimed by the users. Believing it to be a remnant of a pre-Aryan superstition, at present existing only or chiefly among non-Aryan races, its survival among the peasantry in Somerset and Cornwall, where, if anywhere, we may expect to find traces of the aboriginal inhabitants, she thought might possibly be used as a test of race.

Mr. LUKE BURKE, Major OWEN, Mr. CHARLESWORTH, and the PRESIDENT also made some observations, and the meeting separated.

JANUARY 11TH, 1876.

A. W. FRANKS, Esq., F.R.S., *Vice-President, in the Chair.*

The minutes of the previous meeting were confirmed.

The Director announced the following new elections:—
W. R. CORNISH, Esq., 5, Sunderland Terrace, Bayswater;
ISIDORE B. LYONS, Esq., 9, Finsbury Place, E.C.; H. AUBREY
HUSBAND, Esq., M.D., of Brentwood House, Stroud Green
Road, Finsbury Park, N.; and EDMUND CROGGAN, Esq., Beau-
fort House, Beaufort Road, Clifton.

The list of presents was read, and thanks were voted to the
respective donors, viz. :—

FOR THE LIBRARY.

From the AUTHOR.—The Mythology and Traditions of the Maori
in New Zealand. By Rev. J. F. H. Wohlers.

From the AUTHOR.—Kashmir and Kashghar. By H. W. Bellew,
Esq., C.S.I.

From the "ACADEMY."—Bulletin de la Académie Royale de Copen-
hagen. No. 3, 1874; No. 1, 1875.

From the SOCIETY.—Proceedings of the Royal Society. Vol. XXIV.
No. 164.

From the EDITOR.—Revue Scientifique. Nos. 25—28, 1875.

From the SOCIETY OF ARTS AND SCIENCES OF BATAVIA.—Tijdsch-
rift xxi. afl. 5, 6; do. xxii. afl. 4, 5, 6—xxiii. afl. 1. Notulen
xii. No. 4, 1874. xiii. Nos. 1, 2, 1875. Verhandeligen,
xxxvii. xxxviii.

From F. W. RUDLER, Esq.—The Marriage of Near Kin. By A. H.
Huth, Esq.

From the ASSOCIATION.—Proceedings of the Geologists' Associa-
tion. Vol. IV. No. 5.

From the SOCIETY.—Journal of the Royal Asiatic Society of Great
Britain and Ireland. Vol. VIII. Part I.

From the EDITOR.—Nature (to date).

The following paper was read by the author :—

*On the PROBABLE ORIGIN of the MAORIS or NATIVE INHABI-
TANTS of NEW ZEALAND.* By W. S. W. VAUX, M.A., F.R.S.

It has been long a problem, and, I may add, one not yet satis-
factorily solved, whether the Maoris are autochthonous, and if
not, what was the country whence they originally came? Much speculation has arisen on this subject, not, perhaps,
always of the wisest kind, and many theories have been ad-
vanced which, on more careful investigation, cannot be sustained.

As I have been induced by my friend, Dr. Hector, to take much interest in this question, and to look into it with some minuteness, especially from the language point of view, he has asked me to accompany his remarks on the stone implements he has brought from New Zealand with a short preface, stating the judgment my researches have led me to form on the "whence" of the Maoris. I propose, however, that this brief paper shall be, in the strictest sense, a preface to what is to follow from him, as to go into details on so wide a subject would require even more than one long evening. Moreover, the Society would, I feel sure, prefer hearing, from Dr. Hector's own lips, his account of the stone implements he has to show, with the views of their relative dates and uses, which appear to him, from his long and practical experience of the habits of the existing population, to be the most likely.

I shall not, therefore, now discuss these remains, and shall merely add the *one* remark, that I doubt the possibility of deducing any conclusion as to the remote or recent origin of the Maoris from any such monuments, the more so, that both of the two great classes, the rude as well as the highly polished, are met with, at least occasionally, side by side, under the same conditions, in the same old native camping-grounds or settlements, this fact, as it seems to me, clearly showing that they must have been in use, synchronously, by one and the same people. That they were used for very different purposes is equally certain from their wholly different character and conformation. I shall, therefore, confine myself to some other points which are, perhaps, rather more in my province, and shall, thus, be less likely to anticipate what Dr. Hector may presently have to say.

Now, it seems to me that there are *three* sources from which we might hope to gain some information as to the origin of the Maoris, viz. :—

1. Their traditions.
2. Their ethnology and customs.
3. Their language.

To take, *first*, the *Native Traditions*. On this head it is enough for me to state here, that, among these, there is a very general and remarkable uniformity, pointing to this definite conclusion, that, according to their beliefs, their ancestors came from the N. and N.E., and but few at a time, the names of even some of the canoes in which they arrived having been preserved. It is, further, a curious fact that there are still existing families in the islands who put forward a claim, not contradicted by the others, that they are lineal descendants of the first-comers. The most common name they give their primeval home is Hawaiki, a name found variously modified in

more than one of the islands of the Polynesian group,* the natural inference from this fact being that it belongs to some remote place, possibly that of their earliest origin, and has, thus, been handed on from island to island. I may add that, according to a persistent tradition, resting, as in the similar case of Owhyhee, on the genealogies of the families of known chiefs, the Maoris would not seem to have occupied these islands much more than 500 years; and, further, that there is no evidence whatever for the idea, propounded by Mr. Colenso and others in the Transactions of the New Zealand Institute, that any other race occupied these islands before their arrival here. No remains have been found, during the ample investigations of recent years, giving any colour to this notion, nor have the closest observers detected the prevalence of any custom, which might have served to distinguish the Maori of 500 years ago from those of the present day, still less, either of these peoples, from the earlier but hypothetical race who, if they had lived in New Zealand, need not, for this reason, have been the ancestors of the present Maoris.

I cannot, of course, in so elementary a paper as the present, presume to offer any *proofs* of what I myself firmly hold, viz. the almost certain truth of the Maori traditions, the more so that, in the lecture which is to follow, Dr. Hector will no doubt refer to them, and with an authority to which I have no claim. I may, however, state that, so far as I have been able to examine into them, I think the evidence in their favour conclusive. I pass, therefore, on to the *second* portion of this paper,

The Ethnology and Customs of the Maoris.

And, here, I am bound to admit that, at first sight, there is a considerable difficulty, if we are compelled to hold that the colour of skin, the outline of features, or the nature of the hair are, in themselves, enough to constitute a well defined variety of the *genus homo*, for, unquestionably, in external appearance, there is among the Maoris the widest diversity of features, some of

* It seems worth while to note the curious modifications of form under which this name is found. Thus in Cook, 1 Voy. iii. p. 69, we find it called *Heawige*, evidently an error of English origin. In the islands themselves the following forms occur:—1. *New Zealand*—Hawaiki; 2. *Rarotonga* and *Mangarua*—Avaiki; Tahiti, Hawaii; Sandwich, Hawaii (the native name of the island we call "Owhyhee"); Marquesas (like the New Zealand Hawaiki); Samoan, Savaii. It is quite clear that each and all these forms are dialectical variations of some one original, but what that original was we do not know, perhaps never shall ascertain. It is a curious fact that in many of these islands the word simply means "below," corresponding with the *inferno* of other countries, the idea of the people clearly being, as is expressed in several of the legends, that their chief god fished them up from the bottom of the ocean and thus made their homes dry land.

them being almost European in their physiognomy, while others, again, have the high forehead and Roman nose of the North American Indian. There is also an almost equal diversity of colour from the darkest swarthinness to the fair types of the European. All and each of these points may be well seen in some photographs Dr. Hector has collected, in illustration of part of his lecture. Hence it is not strange that Dr. Höchstetter and others should have called the existing natives a *mixed* race, and should have strongly urged the probability that there has been, at some period or other, a considerable infusion of Melanesian blood. To this view, however, I venture to think that the perfect unity of the Maori language is an adequate reply; for though, as might have been anticipated, there are many dialectical differences between the speech of the various tribes dwelling from the north to the south promontories (over a distance of some 13 degrees of latitude), the *common* language of the Maoris, which is better known and has been more carefully studied, than that of any other of the Pacific Islanders, with the possible exception of the Hawaiian, is perfectly homogeneous, with scarcely any words (and these chiefly the import of commerce) assignable to any other tongue. Mr. Thomson has, I think, detected only about 100 words, Malay or of Malay origin, out of the 6,000 to be found in the latest New Zealand dictionary, a dictionary, however, which, it is no injustice to its compilers to state, is far enough from being a thesaurus of the language. Judging by the examples I have seen, there is not nearly as much difference between these local dialects as we find, at the present moment, between the speech of a Yorkshire or a Somersetshire man. Now it would seem scarcely possible, certainly not probable, that, supposing the Maoris the *mixed* race they have been asserted by some to be, not one single word of any other people, except the few Malay words I have referred to, should be found in their current spoken language. Few instances occur of the intermixing of two or more *wholly unlettered* populations, whether by conquest or otherwise, without many words having been preserved belonging, respectively, to the conquered or the conquering peoples.

With regard to their *customs*, I think it may be stated that, with the exception of the cava-drinking, of which we read so much in Mariner's "Tonga Islands," those of the Maoris differ but little from what we find prevailing in the other Polynesian groups—such as the Navigator's, Friendly, Society, Marquesas, and Sandwich Islands—the natural conclusion being, that the inhabitants of New Zealand and the islands I have just mentioned were, at some time or other, much more directly connected

than they are at present; and this conclusion, it will be observed, is wholly in unison with the tradition of the Maori immigration from the N.E. Again, in all, or nearly all of these islands we find the recognition of one or more superior beings, not without some resemblance to the deified heroes of classical antiquity, together with the prevalence, at least formerly, of human sacrifices, infanticide, and cannibalism, the practice of tattoo, and the institution of tabu. In some of the islands, and markedly in New Zealand, there is a total absence of images and of any edifice that could be called a temple, and in most of them, with the exception of New Zealand, their Paradise is supposed to be in a remote island to the N.W.

I learn from Dr. Hector that the Maoris excel greatly in the practice of weaving, that their practice in this art is exceedingly ingenious and peculiar, that they show much taste and skill in the patterns of the cloths they produce; and that the art of carving in wood, for which these islanders are justly famed, is confined to a certain class, and handed down from father to son. I learn, too, that it is usual, when any peculiarly good work is required, to send from one end of the island to another to secure the services of some of the tohungas or skilled artificers, who are themselves, individually, well known.

It would be of great interest could we trace on the continent of Asia, or in the adjacent islands, any manufactured work nearly resembling that of New Zealand, and for this purpose I studied, so far as I was able, the interesting collection now in the India Museum at South Kensington. I regret, however, possibly from my own negligence or defect of eyesight, that I did not detect any specimens from India or the Indian Archipelago exhibiting an accurate resemblance to the work we are entitled to attribute to the native inhabitants of New Zealand. It is, however, extremely difficult to feel sure about the *provenance* of individual objects, and I am, therefore, quite prepared to learn that I passed over, from ignorance, some objects about which I ought to have had no doubt. There is, however, one custom common to many of the other islanders which we do not find among the Maoris, and this is the use of bows and arrows. In New Zealand bows and arrows are not used as weapons of offence and defence, or employed for war purposes, though, as we know from recent fatal examples, they are common enough to the N.W. among the Melanesian and Micronesian populations.

In the *third* portion of this paper, *the Language of the Maoris*, and, on the amount of affinity it has been said by many writers to have with the dialects of other islands in the

Pacific, I am able to speak with considerable certainty, having devoted all the time I could spare, during the last six months, to the study of the leading languages of Polynesia, the Maori, Tonga, Tahiti, and Hawaii, with reference, when I had the opportunity, to the works of William v. Humboldt, Buschmann, Moerenhout, and other travellers.

In this inquiry it is right that I should mention that Mr. Thomson, of Otago, to whom I have already referred, has, three or four years since, instituted many interesting and successful comparisons between the Maori, Malagasi, Tongan, and Malay, respectively, and has published the results at which he has arrived in an able paper in the sixth volume of the "Transactions of the New Zealand Institute, 1873."

The general conclusion I have formed from these studies (and it is obviously not possible for me to give on this occasion either proofs or details) is that all the languages of Polynesia, with the exception of the Tongan and the Fiji (or Viti, as it is more correctly called), are closely connected, both in structure and vocabulary; and, further, that the differences exhibited by the Tongan and Viti, due in each case, I suspect, to Melanesian influences, are, nevertheless, not such, as to exclude them from being *bonâ fide* Polynesian. And secondly, that there is, in each of them, a certain connection with the Malay and Javanese groups of languages, but by no means so intimate a connection as many able philologists have asserted. I think, therefore, that there is no doubt but there once was a distinct Polynesian language, and that this language, in the course of things, and, after the lapse of a period of time we have no data whatever for calculating, has been broken up and left as we find it now in the different groups of the Pacific Islands which I have mentioned.

It will be observed that, if this theory be true, the question as to the "whence" of the Maoris is largely widened out; for, in the face of the close resemblances, any student of comparative manners or of comparative philology will find in each and all of these islands, it is, practically impossible to produce any satisfactory evidence, to show that what is prehistoric in one of them is not equally so in all the rest.* In fact, the question really becomes this, What is the origin of the Polynesian? It is clear that we cannot isolate Hawaiian, Tahitian,

* It has, I am aware, been a favourite view of several writers that the respective antiquity of the different groups on the islands they now inhabit can be shown from the character of their present alphabets, and it has been supposed that, as those to the N.E. and extreme E. of the Pacific—the dwellers, for instance, in the Sandwich Islands or Easter Island—have fewer consonants in their language than the Samoans or the Maoris to the W., the eastern people must, on the theory of the whole of the Polynesians having immigrated

or Maori, though it is probable that the modification these dialects have undergone, and possibly, too, the marked varieties now noticeable in their physical features, suggest the intervention of a very long period of time since the ancestors (whoever they were) common to *all* these peoples dwelt together side by side.

Now, we know that the Polynesians belong, wholly, to that division of mankind who are termed the "yellow men," as distinguished from the "white," or so-called Caucasian races, and the "black," or Negro and Melanesian; moreover, that, physically, they are evidently far superior to either Melanesian or Micronesian. Their prevailing tint is light to dusky brown, with a tinge of yellow, though, as I have said, many of the New Zealanders, and a large proportion of the Sandwich Islanders, are very dark. Still there is scarcely found among them the woolly or crisp hair universally associated with the negro, nor, except rarely, the long, lank hair, the prevailing type of the Malay populations. I ought to add that one of the leading characteristics of all true Polynesians (and in this they stand in marked contrast to the black races) is their love of wandering and of navigating. Many well known and recent instances can be adduced of canoes found in the open sea more than 1,500 miles from the islands whence they had started, and, yet, the occupants of these canoes were not starving, nor, apparently, in any distress.

Now, the leading races of yellow men in Asia are the Turanian Mongols, and I confess, therefore, I think the view I have just sketched out fairly points to a descent of the island populations we now call Polynesian, at some remote period, from the great plains of Central Asia, where still dwell great numbers of a similar type of people. It is quite reasonable to suppose that the necessities of an over-population, or some other agency we cannot now trace, which, in prehistoric times, urged the same people westwards to overrun some of the fairest lands of Eastern Europe, may have induced others of them, either before or afterwards, to force their way to the eastern shores of the Pacific Ocean. Indeed, for such a descent, Nature has herself provided the way; for what better course could be found for the onward march of nations than such great streams, as the Brahmaputra, the Irrawaddy, the rivers of Siam and Canton, and more than all, the mighty Yang-tze and Hoangho? The greater of these

from Asia, have been the first to arrive where they are now, and must, therefore, be the oldest inhabitants of Polynesia. Now, though it is quite true that many dialectical forms still surviving in the W. are not found in the E., and also that the mythology of the W. is comparatively simple and spiritual, while that of the E. is debased and cruel, I cannot say that I am prepared at present to accept either of these views as conclusive as the relative antiquity of the different islanders.

streams ascend into the heart of Asia to the very homes and centres of the Mongolian population, while the lands along much of their course is known to be richly fertile. If we conceive, what was probably the case, a series of waves of emigration, at considerable intervals of time and by different rivers, there is no difficulty in supposing that, when the different groups of emigrants met again a long period afterwards, after having traversed thousands of miles of ocean from their original homes, they would not recognise one another as families who had been once akin. Unlettered populations would not draw the inferences as to origins and ancestries, which are easily discerned by the comparative philologists of Europe.

I believe, therefore, that some such theory as this is sufficient to account for the substantial unity of all the Polynesian dialects, and to account also for the proportion of Malay words and forms detected in some of them. I cannot admit that these languages are *derived* from the Malay, but it is, on the other hand, not improbable that the tribes we now call Malays, descending, originally, also, from Central Asia, did follow the S.E. line of the Brahmaputra, Irrawaddy, &c., while the larger bodies of the Polynesians followed the course of Chinese rivers, at a period long anterior to the Malay descent, gradually crossing the Pacific by the stepping-stones of the innumerable islands to be found between the 20th and 25th parallels of N. latitude. Nearer than this I fear we have little chance of getting.

On CERTAIN EARLY FORMS of STONE IMPLEMENTS in use among the INHABITANTS of NEW ZEALAND. By JAMES HECTOR, M.D., C.M.G., F.R.S.

DR. HECTOR, before describing the collection of New Zealand and Chatham Island Stone Implements, which he exhibited, referred to some points in the ethnography of the Maori race not mentioned in the foregoing paper. He dismissed as untenable the theory that some persons advanced, of the Maoris being autochthones, or a remnant of a former race now represented by isolated groups, through the submergence of a great continental area, and expressed his acquiescence with Mr. Vaux respecting the origin of the Maoris as migrants in common with other Polynesians, but thought that this general way of dealing with the subject rather avoided than settled the issue of greatest interest to the New Zealand student, which is the period of the first settlement of the islands by Maoris, and whether the whole Maori population had a common origin from one migration.

According to the census of 1874, the number of Maoris in New Zealand was 45,470, of whom 43,538 dwell in the North Island, and only 1,932 in the South Island and other adjacent islands.*

This disproportion in the numerical distribution of the Maoris is no doubt due to the more favourable conditions in the north for their open-air mode of life, and for the cultivation of the few simple vegetables which, with fish, form their staple food, the difference of climate between the extremes of New Zealand being nearly equal to that experienced in passing from the South of Italy to the North of Scotland. This disproportion must always have existed, and the little known of the history of the occupation of the South Island shows that it was colonised from the North Island by numerous warlike migrations, and that the Maoris settling in the south soon degenerated both in habits and in physical appearance, so that they might be taken for members of a distinct race. In the North Island, on the other hand, the population has increased until the country was fully occupied; but during this increase certain original divisions of the people have been preserved, so that there are now eighteen distinct tribes, each with subordinate "hapus," which maintain their individuality of interest to a marked degree. For instance, each "hapu" has its own traditional titles to land so well defined that special Native Land Courts have been constituted in the colony for their investigation and conversion into documentary titles.

The testimony given by old Maoris during these trials about events of generations past is stated to be perfectly harmonious, and there is no reason to doubt the truth of their traditional history, and to refer the whole of it to the class of poetical myths, as maintained by Schirren and others.†

The same language is spoken by all the Maoris, though with

* General census, including estimates of certain tribes.

	Males.		Females.	Sex not stated.	Total.
N. I.	23,308	.....	19,458	..... 772	..... 43,538
S. I.	1,055	.....	877	..... —	..... 1,932
Total	24,363	.....	20,335	..... 772	..... 45,470

Selected census from accurate returns respecting thirteen friendly tribes in the North Island.

Males.		Females.	
Under 15.	Above 15.	Under 15.	Above 15.
6,079	11,209	5,225	9,132
Total Males		17,288	
„ Females		14,357	
Total		31,645	

—Parliamentary Papers for New Zealand, 1875.

† "Die Wandersagen der New Seelander, 1856." Quoted by Hochstetter.

local dialects, of which the Moriori, or Chatham Island dialect, is the most distinct. The chief mental peculiarity of the Maoris is their acute power of comparison, which is more highly developed than is usual in uncivilised races. From this circumstance their vocabularies are extensive, and even trivial objects, such as useless plants, receive the same names throughout the islands. This was considered to indicate that the language of the earliest observers in the country was still in use, and that there must have been free communication, probably round the coast, ever since the first occupation of the islands.

It was pointed out, that though the traditional stories of the Maoris may be in the main accepted as true, yet it is not likely that we have a complete history. Our recorded knowledge of the language and traditions is chiefly derived from missionaries and other experts in a few localities, and relates chiefly to such matters as the inquirers were themselves most interested in. This is an important consideration when it is sought to use the early collected traditions as negative evidence, while it is obvious that no traditions collected during the last thirty years, since the diffusion of European ideas and education, should be accepted as proving an absence of knowledge of events or objects on the part of the natives.

Apart from traditions, however, much can be inferred concerning the past history of the Maoris from observation. When the country was first settled by Europeans, some thirty-five or forty years ago, there were still evidences that in their primitive state the islands of New Zealand were covered with forest or dense scrubby vegetation, but that from large areas, where a dry climate prevailed, the original vegetation had been removed by numerous burnings. This process has been carried on by the Europeans, so that except where excessive moisture stays the destruction—as, for instance, on the west coast—the country is converted into open pasture land. On the charred surface of the country the first Europeans found everywhere bones of the moa birds plentifully strewn. The Maori term “moa” includes 18 or 20 different species of birds of stuthious habit, some of massive proportions, and having a stature of 10 feet. As first clearly proved by Mantell, the destruction of these gigantic birds was effected by the Maoris, and the remains of their feasts on these birds are to be found in all favourable places round the coasts and up in the interior. When Mr. Mantell was commissioner for the purchase of the south-east district of the colony, where these moa birds formerly abounded and were last exterminated, certain natives claimed title to the land, on the ground that it was their ancestor that first set fire to the country when engaged in hunting moas. There can be no doubt that the chase of the moas

must have attracted a large number of Maoris from the North Island after it was fully settled and food had become scarce; and the extent of their hunting encampments only prove that the work of extermination was effected with great rapidity, and that the natives at that time had more the habits of Nomads than now, when they are tied down to their cultivations.

The same kind of change of custom took place a second time when certain tribes in the north were supplied by the Europeans with firearms, but the game was then their fellow-men.* The date of the final extinction of the moa, the speaker thought, must be very recent, from the frequent discovery of remains, with skin and flesh attached, almost exposed on the surface. These, no doubt, were straggling survivors, but it is clear that the moas must have been coeval with the forests still existing on the western slope of the mountains, and that their destruction must have followed as an immediate consequence of the arrival of Maoris in any district.

He expressed his dissent from Dr. Haast's theory, that the *moa hunters* were an anterior and different race of people from the Maoris, or that the moas were destroyed by a race of *autochthones* that inhabited a post-pliocene continent that has since been reduced to islands.† This theory has been much canvassed in the colony, and it is only supported by the alleged absence of any traditional knowledge of the moa among the Maoris, and on the ground that the stone implements of the Maoris evinced a higher state of development towards civilisation than those of the moa-hunting natives. The first supposition is negatived by the testimony of the best Maori scholars, such as Judge Manning, who has been admitted to all the knowledge of the *Tohungas*. Also by Sir George Grey, Mantell, and by the circumstance that the moa is described from native report in Polack's work on New Zealand, written before the existence of the large bones was discovered by the European settlers.

With respect to the stone implements, the collection on the table shows that the rudest forms found with the moa bones in New Zealand occur also in the Chatham Islands, where no moa bones have been found. There they are used by the Morioris, a tribe now almost extinct, that lived until late years in caves and rude huts, exposed to most inclement weather, with only a scanty supply of fuel, there being no

* "Life in Ranparah;" by W. T. L. Travers, F.L.S. Trans. N. Z. Inst., vol. v.

† Tr. N. Z. I., iv. 84, et seq. That author has considerably modified his theory in subsequent publications, but in his latest he states that "he has no doubt but that his views expressed some years ago will gain general acceptance." Id. vii. 81.

large trees on the islands. They subsisted chiefly on fish, and the flesh of seals and cetaceans, and clothed themselves in skins. Their canoes were made of the flowering stalks of the *Phomum tenax*, or New Zealand flax. They had all the appearance of a race that had suffered physical degradation, the marks of which are to be seen even now in their crania, but it is generally conceded that they are in language and every other respect a branch of the Maoris. They use the flakes now exhibited for cutting flesh, but at the same time used heavy polished adzes for cultivating their potatoes; and this is the only difference between the common stone implements found in the old moa-hunter encampments and the gardens round the *pahs* of the modern Maoris, where they even yet use agricultural implements of stone.

Referring to a communication to the Society by Dr. Haast (J. E. S. ii. 10), in which certain stone implements were described as of high antiquity, owing to the position in which they were found imbedded in gravels on the west coast of New Zealand, Dr. Hector stated that if the description was correct these would certainly far exceed in antiquity any other human works that had been found in New Zealand, but he had exactly the same form of implements on the table which were found, also on the west coast, by his friend Mr. Harvey, the District Judge, at the root of a tree. Now, trees are in that district frequently burrowed under by kiwis (*Apteryx*) and kakapos (*Strigops*), large nocturnal ground birds, and the holes which they make are just such places where valuables like stone implements would be laid and lost by travelling parties of natives. As the gold-diggers (one of whom found the implements referred to by Dr. Haast), in excavating their trenches and "paddocks," as they term the large open pits, undermine the loose shingle from beneath the tough surface of matted roots, a mistake could easily occur through the dropping down of the stone implements from the surface into the workings. But even if found in the gravels in the position described, it might still be more a modern deposit than has been inferred, as changes in the alluvial deposits on that coast take place with great rapidity owing to sudden alterations in the courses of the rivers. The position in the same locality of a large portion of the wreck of a vessel, with metal sheathing and felt between the planks, was described as 300 yards back and three-quarters of a mile up a small creek, proving the rapidity with which coast drifts accumulate.* The successive belts of vegetation, also described in the paper quoted as proving the antiquity of the deposits on which they grow, did not, in the speaker's opinion, represent successive periods of time; the in-

* Hector, Tr. N. Z. I., iv. 373.

nermost *tutu* scrub, for instance, being indicative of a filled up watercourse which probably ran parallel with the much older beach deposit with its scanty scrub.

The implements and other evidences of human design found in New Zealand were therefore, according to the speaker, to be referred to a time equivalent to the most recent period in the history of other countries. They also show signs of relationship to similar articles in the South Sea Islands, and yet can generally be distinguished at a glance. The chief novelties exhibited were the flakes and wedges, many of the former being of obsidian, which is only found on a small island in the Bay of Plenty, but is still carried about by the natives in blocks for the manufacture of cutting-flakes. In the earliest hunting encampments and on the Chatham Islands these same flakes are found. The other flakes are made of flint, chert, and a quartzite from a tertiary formation that is found in the interior. Also some flakes made by a single blow from a rounded boulder, which are identical with those found in the brocks of Shetland. Among the large adzes or grubbers was the cast of an enormous specimen, found by Captain Fraser in Otago, measuring eighteen inches, and weighing $11\frac{1}{2}$ lbs. The stone of which this and most of the common tools are made is a fine-grained metamorphic sandstone of green colour. Among the implements exhibited was a fine weapon made from the jawbone of a sperm whale, and identical in form with the *rapa* or double-headed paddle of the natives of Easter Island; also a very ancient wooden *mere* or war-club, known as *rangitiki*, which was given to Dr. Featherston, N. Z. C., as a token of the cession of the large block of land where the Fielding settlement has now been established. The chief interest of this *mere* is that the figure carved on it has five fingers instead of the ordinary three fingers and reflexed thumb of usual Maori carvings.*

DISCUSSION.

Mr. E. B. TYLOR mentioned, in confirmation of Dr. Hector's view, that the Maoris were contemporary with the moa, a native story describing gigantic birds in terms evidently drawn from recollection of the living moa. He proceeded to ask whether the tradition of the first arrival of the Maoris in the canoes *Arawa* and *Tainui* seemed to be consistently related and true, and whether the natives thought the island to have been previously uninhabited. With reference to the theory of Mr. Thomson, that the connection of language between Madagascar and Polynesia was to be accounted for by these regions having been

* A series of the stones, worn by the wind so as to resemble human workmanship, were also exhibited from Lyall Bay, near Wellington. (Trans. N. Z. I., ii. 247.)

once joined by a continent now mostly submerged, Mr. Tylor remarked that his idea was that of the submerged continent of Lemuria, the existence of which Professor Selater had suggested on other grounds. But so far as the connection of race and language between Madagascar and New Zealand, &c., was concerned, it appeared to the speaker that this could be quite sufficiently explained on the ordinary view of an immigration of Malayo-Polynesians in canoes to Madagascar, and that to demand a submerged continent for the purpose of accounting for it, was to bring in a vast and venturous theory to explain a small and ordinary fact.

Dr. SPRATT was led to suppose that the peculiar aptitude of the Maoris in defining substances, character, and objects, and readily distinguishing them by giving characteristic names, was not only a law of nature peculiar to New Zealand, but to all human beings where education did not exist. Thus the same power of discrimination might be traced to animals and human beings when they were void of sight, deaf, or dumb, that the nerves peculiarly suitable for given purposes became more active; thus blind people, by the sense of touch, have been known to show signs of remarkable *instinct*, which, in fact, as the *mind*, is simply the action of one, or the combination of several nerves, which again constitute the power of *thought*. Domesticated animals and human beings, through education and new channels being opened to them for occupation, by natural affinity dispense with that portion of the faculty that constitutes "the natural power of definition," and by books, paper, and pens they are able to note a larger amount of knowledge than may be accumulated and retained in memory by mere observation of some striking and attractive points, from every individual change, and appearances of living animals, human beings, plants, atmospheric changes, &c. Some interesting facts appertaining to this subject he is collecting, and will shortly submit them to the Chairman.

Dr. HECTOR and Captain FRASER answered that the Maori tradition of the arrival of the canoes at the island had the appearance of truth, but that the natives seemed to think that there were already people on the islands.

Captain FRASER and the CHAIRMAN also joined in the discussion.

Dr. HECTOR exhibited a large series of stone, wooden, and bone implements, which he had recently brought from New Zealand, in illustration of his paper.

The Director announced the appointment of Auditors of the accounts to be, on behalf of the Council, Mr. CHARLES HARRISON; on behalf of the members, Mr. JEREMIAH; and the meeting separated.

ANNUAL GENERAL MEETING.

JANUARY 25TH, 1876.

Colonel A. LANE FOX, *President, in the Chair.*

The minutes of the last Annual Meeting were read and confirmed.

The Director having read the circular convening the meeting, the Treasurer submitted the Financial Statement for the year ending December 31st. (See next page.)

On the motion of Mr. FORBES, seconded by Mr. DES RUFFIÈRES, the Statement was adopted.

The President appointed, as scrutineers of the Ballot, Mr. G. M. Atkinson and Mr. R. B. N. Walker, and declared the Ballot to be then opened.

The Report of Council for 1875 was read by the Director, as follows:—

REPORT of COUNCIL of the ANTHROPOLOGICAL INSTITUTE of GREAT BRITAIN AND IRELAND for 1875.

THE Institute has held fifteen ordinary meetings, one special, and one anniversary meeting during the year, at which the following communications were read:—

1. On the Anthropology of Prehistoric Peru. By Mr. Consul T. J. Hutchinson.
2. On the Andamans and Andamanese. By Dr. George Dobson.
3. On the Basque and the Kelt. An examination of a paper by Mr. Boyd Dawkins, F.R.S., on the Northern Range of the Basques, in the *Fortnightly Review*, Sept. 1874. By the Rev. Wentworth Webster, M.A.
4. On the Milanows of Borneo. By Lieut. C. C. de Crespigny, R.N.
5. Further Notes on the Stone Monuments of the Khasi Hills. By Major Godwin-Austen.
6. Anthropology at the Congress held at Stockholm, 1874. By H. H. Howorth, Esq.
7. History of the Heung-Noo, part 2. By H. H. Howorth, Esq., and A. Wylie, Esq.
8. On Ultra Centenarian Longevity. By Sir Duncan Gibb, Bart., M.D.
9. On the Chest Measurement of Recruits. By Colonel A. Lane Fox.
10. On Molecules and Potential Life. By Rev. Dunbar I. Heath, M.A.
11. On a Prehistoric Road in Antrim. By G. H. Kinahan, Esq.
12. On the People of the Long Barrow Period. By Professor George Rolleston, F.R.S.
13. On the Height and Weight of Boys aged 14, in Town and Country Public Schools. By Francis Galton, Esq., F.R.S.
14. On the Origin and Progress of the Malagasy. By Rev. Joseph Mullens, D.D.
15. On the Quissama Tribe of Angola, West Africa. By J. J. Monteiro, Esq.
16. On Mythology. By Moncure D. Conway, Esq.
17. On Language and Race. By Rev. A. H. Sayce.
18. On the Beothucs of Newfoundland. By T. G. B. Lloyd, Esq.
19. Description of two Beothuc Skulls. By Professor George Busk, F.R.S.
20. On the Stone Implements of Newfoundland. By T. G. B. Lloyd, Esq.
21. On the Long Wall of Salona. By Captain R. F. Burton.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.

Statement of Income and Expenditure for the Year ending Dec. 31st, 1875.

RECEIPTS.		PAYMENTS.	
	£ s. d.		£ s. d.
BALANCE, January 1st, 1875:		RENT	176 19 6
Bank	85 15 11	PRINTING—Richards	125 0 6
In hand	7 12 3	Berridge	302 0 0
		LITHOGRAPHY—E. F. Kell	85 1 0
SUBSCRIPTIONS:		Hauhalt and Griesbach	9 18 0
Collector	623 14 0	Ford and Mintern	15 16 3
Bank	69 6 0		
Redemption Fund	693 0 0	SALARIES, &c.:	
Illustration Fund	55 5 0	Secretary	100 0 0
Donations for Damman's Photographic Album..	15 8 0	Clerk	66 5 0
	8 0 0	Collector—Commission	34 13 6
SALE of PUBLICATIONS:		MUSEUM—Hindoo Skeleton and Case	
Tribner—Journal (1873—1875)	140 19 4	LIBRARY—Damman's Photographic Album	
" Other publications	1 15 8	OFFICE—Stationery	5 6 6
Longmans	5 3 5	Receipt and Bill Stamps	2 8 0
Murray	1 1 7	London Library Subscription	3 0 0
Office Sales, 1875	12 13 3	Insurance and Sundries	8 11 10
	161 13 3	POSTAGE—Journal (Nos. 10—13)	27 16 9
		Letters, Circulars, and Post Cards	21 15 6
		ADVERTISEMENTS—Street	
		HOUSE—Coals, Lights, &c.	14 18 0
		Housekeeper (Ayres)	15 0 0
		Tea and Coffee	31 0 6
		Parcels and Sundries	8 2 1
		BALANCES:	
		Bank	93 13 7
		In hand	11 10 2
			105 3 9
			£1,026 14 5

We have examined the above account, and find it correct.

CHARLES HARRISON,
J. JEREMIAH, } Auditors.

22. On the Ruined Cities of Pharia and Gelsa di Lesina, in Dalmatia. By Captain Richard F. Burton.
23. On the Comparative Psychology of Man. By Herbert Spencer, Esq.
24. On the Natives of Central and Western Australia. By John Forrest, Esq.
25. On the Papuans of New Guinea. By Captain John A. Lawson.
26. Short Notes on Heredity in Twins. By Francis Galton, Esq., F.R.S.
27. A Theory of Heredity. By Francis Galton, Esq., F.R.S.
28. Report on the Anthropological Department of the Bristol Meeting of the British Association. By F. W. Rudler, Esq., F.G.S.
29. Report of the Exploration Committee of the Anthropological Institute on the Excavations in Cissbury Camp, Sussex. By Colonel A. Lane Fox.
30. Remarks on the Animal Remains discovered in the Excavations. By Professor George Rolleston, F.R.S.
31. On the Belief in Bhutas—Devil and Ghost worship in Western India. By M. J. Walhouse, Esq.
32. On the Localities whence the Tin and Gold of the Ancients were derived. By C. O. Groom-Napier, Esq.
33. On the Weddas. By Bertram F. Hartshorne, Esq.
34. Note on a proposed International Code of Symbols for use on Archaeological Maps. By John Evans, Esq., F.R.S.
35. On Divination by the Rod and by the Arrow. By Miss A. W. Buckland.

Thirty-five ordinary members have been elected during the year.

His Majesty the Emperor of Brazil, his Majesty the King of Siam, and his Excellency Don Manuel Pardo, have been elected honorary members, and Dr. Benham corresponding member.

Twenty-four ordinary members have withdrawn since the last anniversary.

The Institute has lost, through death, Mr. Cornish Brown, Mr. T. P. Tindale, Mr. F. Hindmarsh, Mr. W. Sloan, Dr. O'Callaghan, Rear-Admiral Sherard Osborn, Lieut-General John Briggs, Sir Edward Ryan, Mr. Charles Tuckett, Mr. W. Gillespie, Mr. C. C. Green; Canon Kingsley and Sir Charles Lyell, honorary members; and M. D. Omalius d'Halloy, corresponding member.

The following are the names of donors to the Library and Museum during the past year:—

The Royal Society; the Editor of *Nature*; the Asiatic Society of Bengal; Francis Galton, Esq., F.R.S.; Editor *Revue Scientifique*; Hyde Clarke, Esq.; Messrs. Longmans and Co.; Imperial Society of Naturalists, Moscow; Smithsonian Institution; Anthropological Society of Paris; Dr. Paul Broca; Society of Biblical Archaeology; Royal Geographical Society; Geologists' Association; Liverpool Literary and Philosophical Society; Glasgow Philosophical Society; Registrar-General of New Zealand; East India Association; James Burns, Esq.; Henry P. Le Mesurier, Esq.; Editor of *Cosmos di Guido Cora*; Prince L. Lucien Bonaparte; Vienna Anthropological Society; Captain Harold Dillon; Professor Boyd Dawkins; Karl A. Zittu; Editor *Archiv für Anthropologie*; T. E. Pickett, Esq.; Royal Academy of Sciences, Amsterdam; John Evans, Esq.; Royal United Service Institution; the India Office; Imperial Academy of Sciences, Vienna; Academy of Sciences, Cracow; Society of Arts and Sciences, Batavia; the Canadian Institute; the Swedish and Norwegian Legation; Social Science Association; the Rev. James Graves; Edward W. Cox, Esq.; Joseph Milligan, Esq.; Berlin Anthropological Society; Dr. John Shortt; Rev. T. F. Falkner; the

Secretary of State for India in Council; Professor P. Mantegazza; Luke Burke, Esq.; Rev. W. C. Lukis; Royal Academy of Copenhagen; Asiatic Society of Japan; Royal Society of Northern Antiquaries; Professor F. V. Hayden; Executors of the late Henry Christy, Esq.; John Brent, Esq.; Captain R. F. Burton; Mr. Jackson; Captain S. P. Oliver; Anthropological Society of Spain; Messrs. Chapman and Hall; Royal Society of Literature; Society of Antiquaries of Scotland; Dr. Cuthbert Collingwood; American Philosophical Society; Royal Society of Victoria; Imperial Academy of Sciences, St. Petersburg; British Association for the Advancement of Science; Watford Society of Natural History; Boston Society of Natural History; Dr. Eldridge Spratt; T. Squire Barrell, Esq.; Society of Antiquaries of London; Asiatic Society of Great Britain and Ireland; Royal Institution of Cornwall; Royal Colonial Institute; the Devonshire Association; M. Valdemar de Mainoff; Professor George Rolleston; Rev. W. Carruthers; W. Pengelly, Esq.; A. R. Wallace, Esq.; W. M. Gabb, Esq.; Dr. I. Kopernicki; the Right Hon. Lord Arthur Russell; Rev. J. F. H. Wohlers; H. W. Bellew, Esq., C.S.I.

On the motion of Mr. DUNN, seconded by Mr. CHARLES WORTH, the Report was adopted.

Several matters connected with the internal management of the Institution were discussed, and

The following Council and Officers of the Institute for 1876 were announced by the Scrutineers as having been elected:—

President.—Col. A. Lane Fox, F.S.A.

Vice-Presidents.—Prof. Geo. Busk, F.R.S., John Evans, Esq., F.R.S., A. W. Franks, Esq., M.A., F.R.S., Francis Galton, Esq., F.R.S., Geo. Harris, Esq., F.S.A., E. Burnet Tylor, Esq., F.R.S.

Directors.—E. W. Brabrook, Esq., F.S.A., Capt. Harold Dillon, F.S.A.

Treasurer.—J. Park Harrison, Esq.

Council.—J. Beddoe, Esq., M.D., F.R.S., W. Blackmore, Esq., Sir Geo. Campbell, K.C.S.I., F.R.S., Hyde Clarke, Esq., J. Barnard Davis, Esq., M.D., W. Boyd Dawkins, Esq., F.R.S., Robert Dunn, Esq., F.R.C.S., David Forbes, Esq., F.R.S., Charles Harrison, Esq., F.R.S.L., H. H. Howorth, Esq., M.A., Prof. T. McK. Hughes, F.G.S., Prof. Huxley, F.R.S., A. L. Lewis, Esq., Sir John Lubbock, Bt., F.R.S., F. G. H. Price, Esq., F.R.G.S., J. E. Price, Esq., F.S.A., Prof. Rolleston, M.D., F.R.S., C. R. Des Ruffières, Esq., F.R.S.L., Lord Arthur Russell, M.P., M. J. Walhouse, Esq., F.R.A.S.

The following was the PRESIDENT's address:—

I now proceed to offer a few observations upon such points as appear most worthy of your attention on the occasion of the present anniversary meeting.

In doing so I shall be guided by the consideration that the ordinary meetings held throughout the year suffice for the introduction of new facts, and for discussing the various

branches of anthropological science which are brought before the Institute.

At those meetings we are, however, debarred from considering questions relating to internal administration, which are, nevertheless, of great importance to the progress of our science. I shall therefore avail myself of the only opportunity afforded me of laying before you views on the organisation, policy, and future prospects of the Institute, upon which it appears desirable to invite the expression of opinion and co-operation of the members.

I will not, however, so far deviate from the custom of my predecessors as to omit all mention of the many valuable and interesting papers which have been read and published during the past year, and the more so, as the year terminating with the publication of the present month, has been remarkable for the value of the communications contributed to our Journal.

Before doing so I wish to say a few words upon a subject of no slight importance to the clear comprehension of ideas, as well as to the division of labour so necessary in the organisation of our Society. I allude to the terminology to be employed in the classification of our subjects.

My predecessor, Professor Busk, with whom it has been my good fortune to co-operate on so many occasions, employed in his Anniversary Address a fourfold classification, dividing the subjects of the previous year into—1. Ethnology. 2. Pre-historic or Priscan Archæology. 3. Anthropology proper; and 4. General works or essays relating to Ethnological subjects.

This classification, although otherwise unobjectionable, appears to me not well adapted to our existing organisation, inasmuch as it restricts the employment of the term Anthropology to a branch of our science instead of using it comprehensively to designate the whole. A classification which necessitates the adjunct *proper* to one branch of our subject, in order to distinguish it from other branches of a less strictly anthropological character, can only be regarded as a provisional arrangement; nor do I suppose that Mr. Busk himself in-

tended it to be regarded in any sense as a final system of classification.

I am well aware of the inconvenience arising from the use of new terms, and am prepared to admit that if, on the first formation of the Institute, we had adopted a title that was shorter and better known, we should have doubled our members before now.

But it is now too late to retrace our steps in this direction, nor would the doing so serve any useful purpose at the present time. Anthropology has been born anew in the Institute, and the term is becoming generally accepted by the public; and unless we intend to abandon it as the title of our Institute, it is, I think, to be regretted that any of our members should continue to use it in the restricted sense of what is now known as the Biology of Man; the more so as biologists are often credited with adherence to special doctrines that are not accepted by all. It cannot be too widely known that the formation of a special school is quite inconsistent with the principles on which the Institute is organised, and that Anthropology, as a science of man, whilst it embraces the widest field of subjects, admits of the utmost freedom of treatment that is consistent with a scientific regard for the value of evidence.

In any attempt to classify our papers under broad scientific headings we are met at once by the difficulty of deciding whether our classification shall be by subjects or by workers. If, for example, we wished to make a twofold division of our subjects, we should find that all branches of anthropology might be arranged under the two terms *Biology* and *Sociology*, corresponding to Constitution and Culture—the first relating to man as a member of the animal kingdom, the second to the development of human institutions. But it would be found, in practice, that a large number of our papers contained both biological and sociological matter, and could not, therefore, be distinguished under these headings. Or, if we wished to arrange our subjects under headings which would include the different classes of workers amongst our members, we might divide them into *Inductive* and *Deductive*. But here, again, it would be found that a number of our papers, being both Induc-

tive and Deductive in their contents, could not be adapted to this nomenclature.

It appears, therefore, better to abandon all attempt at primary classification, and, whilst retaining the use of these general terms for such papers as cannot properly be referred to any of the subdivisions of them, to adopt in our classification the use of such expressions as have grown into use in practice, and more particularly such as have been employed by cognate societies to designate those subjects which are properly branches of our science. By this means we shall at the same time pave the way for absorbing their members into our own body, and forming a strong society, which is so much needed.

Commencing with our inductive branches, we have two, which, in all anthropological investigations, are necessarily allied, viz. :—

1. Descriptive Ethnology; and 2. Archæology, representing the present and the past—the former consisting of papers by travellers and others, descriptive of the people visited, their institutions and arts; the latter referring to the past history or relics of those people. It is the support which the former of these two branches affords to the latter, by interpreting the past by the present, the unknown by the known, which constitutes the peculiarity of our inductive method and entitles the anthropologist to a standing in the ranks of science.

With respect to Archæology, we are concerned chiefly with the prehistoric part of it; but it seems desirable we should come to a better understanding as to the exact meaning of the terms Historic, Non-historic, Prehistoric, and Proto-historic, which are so variously employed by different writers. By some the term historic is held to represent throughout the world all that space of time which is subsequent to the first dawn of authentic history in Europe, but the practical impossibility of referring events in uncivilised lands to this standard renders the use of the term quite ineffectual in a definite chronological sense. It is better, I think, to use it only as expressing the degree of reliance that is to be placed upon our knowledge, as being conveyed to us by means of written records, and that in every country the term historic should be applied only to the

period of the authentic and continuous history of that country. It will be seen that I here adopt Mr. Boyd Dawkins' definition of the term, distinguishing the historic period of each country, as that of which we have continuous and connected narratives, rather than that of which we have only fragmentary notices. In the same way, non-historic should in each country refer only to such events or monuments as, being of the period of authentic and continuous history, as above defined, are not recorded in such histories.

Then, again, it has been proposed to limit the term prehistoric to the period immediately preceding the dawn of history, including the neolithic, bronze, and iron periods, or what is known to archæologists as the surface period, and thereby distinguishing it from the drift or palæolithic period of the geologist. But I hold that it is liable to create confusion to employ, in a restricted scientific sense, a term which is etymologically of broader signification, and which must continue to be employed, vulgarly, in a broader sense. The word prehistoric must be generally understood to mean all that term of human existence upon the earth, whatever its duration may have been, which preceded historic times, and it ought, I think, to be scientifically accepted in this sense.

The word proto-historic has been applied to the borderland between historic and prehistoric, and relates to matters not as yet referred to the domain of history, and of which our knowledge is either fragmentary, or derived from local inscriptions, hieroglyphics, or traditions, which are accessible only to a few, or of doubtful import, and including much of what has lately been treated under the name of Biblical. Here we are reminded, by the success of an important branch of anthropology, which has flourished of late years under that name, of the importance of adopting a popular nomenclature when practicable. This branch of proto-historic archæology has been almost wholly lost to us, owing to the skill and energy with which the Society of Biblical Archæology has been worked; but it would probably be for the advantage of both societies if an interchange of ideas could be established between us.

We come next to (3) Ethnology, by which name we may

now understand all racial questions, papers relating to the origin, identity, or influence of race, and which is distinct from descriptive ethnology, being deductive rather than inductive, and including usually a different class of workers.

After this we have (4) Biology, comprehending all general biological papers which cannot be referred to either of its two subsections—viz. (5) Comparative Anatomy, and (6) Psychology. Whatever views individuals amongst us may entertain as to the subjects which should be included under the head of Psychology, we require no better authority for including it as a branch of our science than Mr. Herbert Spencer's communication to the Society on this subject, and the fact that a separate Psychological Society has been established during the past year, numbering many members, the majority of whom might have been gained to the Institute if we had exercised a little more foresight in relation to this branch.

Finally, we have (7) Sociology, which properly includes—but which, for practical purposes, should be kept distinct from—its subsection (8), Philology.

I now proceed to classify the papers read before the Institute during the past year under these headings, terminating with the contents of the "Quarterly Journal," published on the 1st of this month, and commencing with a corresponding period in the preceding year. In each class the papers are taken in the order in which they were read.

DESCRIPTIVE ETHNOLOGY.—*Nine Papers.*

1. A note by myself, on the "Resemblance between the Arrows used by the Talamanca Indians of Costa Rica and those of the Indians of Brazil," inferring social connection.

2. A paper by Mr. M. G. Walhouse, on the "Korāgars of South Canara, West Coast of India." They are especially remarkable for the custom of wearing an apron of leaves over their buttocks by the women. In former times this appears to have been the only covering of both sexes, and it is now retained as a survival, the women wearing the apron over their other clothes, and believing that to discontinue the custom would be unlucky. They are proverbially truthful, their word

being accepted even by so suspicious a people as the Hindoos, a fact which the author mentions as an exception to the assertion of Mr. J. S. Mill, that savages are always liars, and have not the faintest notion of truth as a virtue. Many of the customs of these people are remarkable, more particularly that which precludes them from taking up or holding any animal or object that has four legs.

3. On the "Andamans and Andamanese," by Mr. G. E. Dobson. The author concurs with Mr. Wallace in connecting these people especially with the woolly-haired Samangs of the Malay Peninsula, and believes that they are also connected with the Dravidians of India, being a branch of the great dark race of mankind, which in ages past occupied the lands south of the Himalayas. None of the tribe visited exceeded 64 inches in height, and the author was especially struck with the relatively small size of the females. They are a singular example of brachycephalic negroes. Several excellent photographs accompany this paper.

4. A paper by Lieut. De Crespigny on the "Milanows of Borneo," which, on account of the resemblance of their religious customs, he believes to be descended from the same ancestors as the inhabitants of Timor, and the Moluccas, and also the Kyans, but he does not think that any of these are the aborigines of the country.

5. A "History of the Heung-Noo in their relations with China," translated from the Chinese, by Mr. A. Wylie. This is a continuation of a paper in the third volume of our Journal, and does not admit of a brief abstract.

6. A paper on the "Origin and Progress of the People of Madagascar," by Dr. Joseph Mullens, Foreign Secretary to the London Missionary Society. In this paper the author disputes the theory put forward by Mr. Crawford and others, who considered the main body of the Malagasy to be of African descent, and the Hovas to represent an infusion of Malay blood. Dr. Mullens thinks that the whole of the inhabitants of the island are of Malay origin, but slightly tainted with African connection. Their language he considers to be more closely allied to the Malaya branch than to the Javanese, or Bali.

The difference of complexion observable amongst them he attributes to local causes, the coast tribes inhabiting the hot feverish provinces being of darker skin than the inhabitants of the central plateau.

7. "An Account of the Quissama Tribe of Angola," by Mr. J. J. Monteiro. After 300 years of constant intercourse with the white race these people are still a savage and untamed tribe, but they are not cannibals. They are small, ugly, and dirty in their persons. Their social connection with other races in different parts of Africa is shown by the employment of small polygonal blocks of rock salt as a medium of exchange, a custom frequently noted in other African tribes.

8. A paper describing sundry relics of the Beothucs, aborigines of Newfoundland, by Mr. E. G. B. Lloyd. They are described as a handsomer race than the Micmacs, having more regular features and aquiline noses, less dark in the skin, of middle stature and active build. Amongst other relics discovered was an iron European axe, which had been transformed, by great labour, to their own peculiar shape; thereby adding another to the many recorded instances of the inveterate conservatism of savages, especially in regard to the forms of their tools.

9. A paper by Mr. John Forrest, the Australian explorer, on the "Natives of Central and Western Australia." The innumerable sub-tribes are divided into two great divisions, called Tornderup and Ballarook—these are exogamous. A Tornderup must marry a Ballarook, and *vice versa*—those who break the rule are generally killed. They wear no clothes, but grease themselves instead. They suffer much from cold, and, although they might easily make rugs of kangaroo and wallaby skins, they do not do so. They eat almost everything, and their capture of wild animals is much facilitated by the scarcity of the watering-places, to which the animals are obliged to resort. Mr. Forrest adds but little to our knowledge of their arts and implements, beyond confirming the fact that the same forms prevail with but slight variation all over the continent. Circumcision is universal, and it is a sort of religious ceremony. Cannibalism is common, and from the scarcity of graves, the

author having only seen two in all his travels, he infers that they frequently eat their dead. Should this be confirmed, it will perhaps be supposed to throw some light on the question so frequently asked by prehistoric archæologists of the races of the stone age—What became of the great mass of their dead?

ARCHÆOLOGY.—*Seventeen Papers.*

1. A paper by myself, noticing the identity of the forms of arrow-heads discovered on the banks of the Rio Negro, Patagonia, with those found on the surface throughout the United States, forms which are nevertheless peculiar to America.

2. A note by Mr. C. Cotesworth, on mortuary towers in the neighbourhood of Palmyra, believed to be some 1,800 or 2,000 years old. One of them was 30 feet square and 74 feet high, containing mummies of the dead. These towers have a curious resemblance to certain mortuary towers in Peru noticed by Mr. Squier.

3. A note on "Some Peruvian Antiquities," by Mr. Bollaert.

4. A paper on "Tumuli and Stone Circles near Castleton, in Derbyshire," by Mr. Rooke Pennington. The author believes that, in Derbyshire at least, no connection can be established between the neolithic age and contracted burial, and the bronze age and incineration. The two customs were in force at the same time; both existed in the stone age, and both continued in vogue after the introduction of bronze. Mr. Pennington also gives his reasons for supposing that many of our megalithic circles, especially the larger ones, are not sepulchral, but devotional.

5. A note by Mr. Park Harrison, in which he points out the existence of Phœnician characters, reversed, on tablets inscribed on the convex surfaces of bamboos, in the island of Sumatra. This communication, though short, is important, and there appears to be very little doubt that the connection assumed by Mr. Harrison, in so far as the form of the letters is concerned, has been established.

6. A paper on the "Anthropology of Prehistoric Peru," by Consul Hutchinson, in which the writer gives his opinion that

the aboriginal South Americans were the oldest people on the American Continent, and also that the civilised life of the ancient Mexicans and Central Americans may have had its original beginning somewhere in South America, most probably in Peru, as it seems more closely related to the ancient South Americans than to the wild Indians north of the Mexican border.

7. A paper by Mr. Harold Dillon on flint implements, consisting of flakes, scrapers, celts, and arrow-heads, found on the surface near Ditchley, in Oxfordshire. The writer's observations on the distribution of these implements tends to establish their connection with some ancient dykes of considerable extent which exist in the neighbourhood.

8. A note on some stone mining tools discovered in ancient copper mines, consisting of surface workings at Alderley Edge, in Cheshire, by Mr. Boyd Dawkins, in which he points out the resemblance of these tools having a lateral groove for a withy, to others found in prehistoric copper mines elsewhere.

9. Some further notes on the "Rude Stone Monuments of the Khasi Hill Tribes, near Shillong," by Major Godwin Austen. Many will regret to read in this paper of the destruction of some of these monuments by our own camp followers, and the remark that the European is in this respect more destructive than the Hindoo. Major Austen takes care to qualify this remark, by saying that he refers to uneducated Europeans. It is perhaps too much to expect that the servants of a government which cannot be persuaded to protect its own prehistoric monuments should pay much respect to those of a savage race; but India has hitherto been highly favoured by the establishment of an archaeological survey, an example which might be followed with advantage at home.

10. On "A Prehistoric Timber Road at Ballyalbanagh, co. Antrim," by Mr. G. H. Kinahan. Judging by the growth of peat, the writer estimates the age of the oak forest at 5,000 years, that of the deal forest at about 2,000, making the roadway about 3,000 years old.

11. On the "Stone Implements of Newfoundland," by Mr. Lloyd. Most of the forms found on the surface appear to be of

the ordinary North American types. Some of the concave tools for working rounded objects attracted special notice.

12. A note on some hieroglyphic tablets from Easter Island, by Mr. Park Harrison. These were of the usual character from that island, and have not been deciphered; but it was noticed that there were connections between the forms, and that whilst some were clearly pictographic, others appeared to have passed into a symbolic stage, which suggested the advisability of an attempt to classify them.

13. Some Antiquities from Hissarlik, the supposed site of Ancient Troy, were exhibited by Mr. Bertram Hartshorne.

14. A very valuable paper, by Professor Rolleston, "On the People of the Long Barrow Period." Amongst other noticeable points in this paper is the result obtained by the author as to the height of the skeletons. That of the males averaged 5 feet 6 inches, whilst the females averaged 4 feet 10 inches. This is a greater difference than is observable between the sexes in modern times. On the other hand, the difference in the size of the skulls of the sexes is less in prehistoric times than amongst civilised races, and in this respect the stature and skulls of modern savages accord with those of prehistoric times. As regards the mode of burial, he says the immense majority of the long barrows in the South of England were erected for inhumation, whilst exactly the reverse of this has been the rule in northern counties. On the whole Professor Rolleston inclines to the belief that indications are not wanting to suggest that inhumation will ultimately be shown to have been the earliest mode of burial in these the earliest of known sepultures; but this and other points treated upon in the paper are, he thinks, in need of further evidence for their definite solution, and are beset with numerous difficulties and sources of fallacy.

15. A paper on the "Long Wall of Salona and the Ruined Cities of Pharia and Gelsa de Lesina," by Captain Burton, who believes them to be the work of the civilised Greeks, not the barbarous Illyrians, and to be of pre-Roman origin. Time does not enable me to give to this communication the space it deserves in the review of our proceedings.

16. A note by Mr. Horace Woodward on the discovery of a

wooden image and bronze spear-head, at depths of 15 and 20 feet respectively, in the river gravel of the Teign, near Newton Abbot. The surface of this gravel deposit was but 4 or 5 feet above the present river, so that the objects themselves were considerably below that level. The gravel is classed by the author amongst the most recent accumulations of the river, and contemporaneous with the alluvium.

17. Excavations in Cissbury Camp, Sussex, being a report of the Exploration Committee of the Institute for the year 1875, by myself. These excavations have confirmed in a satisfactory manner the opinion that the shafts and galleries were made to obtain flints for implements, by showing that the same seam of flints was worked from different shafts. They have proved beyond doubt that the shafts and galleries were older than the ancient British camp in which they are situated. The camp has also been shown to be of pre-Roman times. The flint mines are of the neolithic age, and two different modes of working them were employed. A skeleton of a female of the age of the mines was discovered in the bottom of a shaft, the dolichocephalic skull of which confirms the opinion of Professor Rolleston, already referred to, as to the relatively large size of female heads in prehistoric times. These excavations will probably be considered of value hereafter, on account of the very conclusive nature of the evidence they afford.

ETHNOLOGY.—*One Paper.*

We have but one paper on deductive Ethnology, as I have defined the term, viz. :—one on the Basque and Kelt, by the Rev. Wentworth Webster. The paper contains much valuable information, but is limited to an attempt to disprove the views of Mr. Boyd Dawkins, which he had published in the *Fortnightly Review*, as to the presence of an Iberian race allied to the Basques in Armorica and other parts of Western Europe. The paper gave rise to an animated discussion, which, owing to our system of obtaining reports from the speakers themselves, we have been able to publish in full. It was shown clearly that the Basques, though now speaking one language, consisted of two very different races, the one tall, fair, and brachycephalic,

the other short, dark, and dolichocephalic, both probably belonging to the earliest inhabitants of Europe, which had been driven by subsequent waves of immigration, the one northward and the other southward, into these mountains, where they have retained to this day the distinctive racial peculiarities of their ancestors. The question of language as a test of race was freely discussed by Mr. Sayce, Mr. Rhys, Mr. Hyde Clarke, and Prince Lucien Bonaparte.

BIOLOGY.—*Five Papers.*

1. A paper by Sir Duncan Gibb, on "Ultra-Centenarian Longevity," more particularly on the case of a gipsy of the name of Elizabeth Leatherlund, who lived to the age of 112.

2. "On the Height and Weight of Boys, aged Fourteen, in Town and Country Public Schools," by Mr. Francis Galton. The result is that boys of this age in the country group are about $1\frac{1}{2}$ inch taller than those in the town group, and 7 lbs. heavier. No proper abstract of this paper can be given: it includes several tables of measurements which must be studied in order to be understood.

3. "Short Notes on Heredity in Twins," by Mr. Francis Galton. Mr. Galton finds with regard to 94 cases of twins, of whom he had sufficient returns, that they had a total of 1,065 uncles and aunts, and that amongst these there were 27 sets of twins; in other words, there were twice 27, or 54 persons who were severally one of a pair of twins amongst the 1,065 uncles and aunts—say 1 in every 20. In the population generally the proportion is much less, being only 1 in 50.

4. A "Theory of Heredity," by Mr. Galton. It is impossible to give in a few words any summary which will do justice to this paper. The following will, however, suffice to give an idea of the theory.

He assumes as an admitted fact, that every body consists of a multitude of organic units, and that this hypothesis must necessarily be at the foundation of a science of heredity. He employs the word "stirp," from stirpes, a root, to express the sum-total of the germs, gemmules, or whatever they may be

called, which are to be found in the newly fertilised ovum, that is, in the earliest pre-embryonic stage.

He then puts forward four postulates, viz :

(1) That each of the enormous number of quasi-independent units of which the body consists has a separate origin or germ.

(2) That the stirp contains a host of germs, much greater in number and variety than the organic units of the bodily structure that is about to be derived from them, so that comparatively few individuals out of the host of germs, achieve development.

(3) That the undeveloped germs retain their vitality ; that they propagate themselves while in a latent state, and contribute to form the stirps of the offspring.

(4) That the organisation wholly depends on the mutual affinities and repulsions of the separate germs, first in their earliest stirpal stage, and subsequently during all the processes of their development.

In this way he accounts for the known fact that a man is capable of transmitting a variety of ancestral peculiarities to his children that he did not himself possess, that diseases are sometimes found to skip a generation ; and also he accounts in this way for the assumed fact, which, however, will, I apprehend, be the point in the paper least likely to receive general acceptance—viz. the almost complete non-transmission of acquired peculiarities.

5. A paper on the "History of Twins," by Mr. Galton, which is reprinted, with revisions and additions, from *Fraser's Magazine*.

It may, perhaps, be considered favourable to the correctness of the classification which I have adopted, that, without premeditation on my part, nearly all the papers which come under this head of Biology, as distinct from its two sub-branches of psychology and comparative anatomy, are contributed by one of our members. It is to be hoped that we shall not have to wait until the principle of heredity has asserted itself in Mr. Galton's offspring before we have other contributors to this important branch of our studies.

COMPARATIVE ANATOMY.—*Four Papers.*

1. "On Some Skulls from the Mortuary Towers at Palmyra," already referred to, by Professor Busk. These, Mr. Busk says, are of interest, as confirming the fact that "the people whose remains they represent, at whatever period they existed, were a robust, dolichocephalic race, certainly having no relation to the Mongol type, and, in all probability, distinct at any rate from the Hebrew branch of the Semitic stock."

2. A "Note on Five Lapp Skulls," by Dr. Simms. Dr. Simms believes that the long arms and proportionately small size of the legs in the Lapps are the result of use and disuse consequent on their habits of boating and sledging.

3. A "Note on the Chest-measurement of Recruits," by myself, in which it is shown that the difference between the measurement taken horizontally across the nipples, and that taken obliquely under the shoulder-bones, is from $\cdot 53$ to $\cdot 7$ of an inch, and that it is relatively greater in recruits of small stature.

4. A paper on two Beothuc skulls, by Mr. Busk, giving the details of measurement.

PSYCHOLOGY.—*One Paper.*

1. "The Comparative Psychology of Man," by Mr. Herbert Spencer. This is a classification of the leading divisions and subdivisions under which the comparative psychology of man may be arranged. It is put forward in the view that the study of psychology has not yet received the attention it deserves in our deliberations, and it is intended to be a means of clearing our ideas, so as to enable us to approach the subject systematically. The importance of this branch of inquiry is every day forcing itself on the attention of our members, and it is hoped that it will lay the foundation of a sound study of psychology in connection with the Institute. The paper is itself in such a condensed form that it is impossible to give a satisfactory abridgment of it, and I can only recommend all the members to read it carefully.

SOCIOLOGY.—Two Papers.

1. "Early Modes of Navigation," by myself; being an attempt to trace out the development of this branch of art by means of survivals in different savage races.

2. On "Mythology," by Mr. Moncure Conway. Mr. Conway's treatment of the subject is based on the idea that myths are the degenerate survivals of early religions. This view of the subject is, I believe, perfectly consistent with that of evolution, if we regard myths in the light of drooping branches derived from the upward-growing stem of intellectual progress. On no other hypothesis, save that of the supernatural origin of religious ideas, can this view be accepted.

PHILOLOGY.—Two Papers.

1. A note on the "Language of the Andamanese," by Mr. Hyde Clarke, in which he attempts to connect the Mincopic language with those of other parts of the Southern hemisphere.

2. "Language and Race," by the Rev. A. H. Sayce. The main result arrived at in this paper is that language is a test of social contact, not of race. When there are traces of two or more languages in the same language, or when two distinct races have the same tongue, you can infer, with absolute certainty, that there has been social contact; but when such traces are not to be found, we are not justified in inferring that there has been no such contact. Language, he maintains, is in a constant state of flux.

The foregoing is a *résumé* of the work of the past year, in which I have not, I believe, omitted to notice a single paper.

It has been sometimes said that the main fault of our Society is over-specialisation. I cannot concur in this opinion. The papers which have been noticed show, I think, a fair amount of generalisation. The time which members are able to devote to anthropology is limited, and the division of labour must be maintained. Provided always that our deductions do not exceed the limits warranted by our facts, I see no evil in confining our separate investigations within such limits as can be satisfactorily

dealt with. Unless we are able to devote the close attention to each branch of anthropology which the requirements of science demand, special societies will be formed, which, separating themselves from us, cause waste of power, narrowness of interests, and promote specialisation in its worst form.

The policy which I would advocate for the future of the Institute is to maintain, as far as practicable, intimate relations with branch societies, to take every means in our power to facilitate the election of their members, and, in case of a change of quarters, to promote the union of as many of them as possible under one roof. By this means the Institute, embracing, as it does, the whole of them within the range of its subjects, would come to be regarded as a focus in which specialists might meet and exchange ideas.

Without doubt the ultimate achievement of anthropological science is the recognition of general laws. But experience proves that, in the existing state of our knowledge, few persons are competent to deal with so large a subject. The anthropology of our popular magazines is a caution to us in this respect, serving to show that the most useful function of our Society consists in collecting, sorting, and classifying evidence.

Then again it is our inductive branches which require our more immediate attention. There is ample time before us for generalising if we can first lay in a good stock of facts, but, for doing this, hurry is needed. Aborigines are dying out, or fast changing their customs; and even in civilised countries old landmarks are being removed so rapidly that in a few years the opportunity for collecting information will be lost. It is a great mistake to say, as some have done, that ample materials for our science are already to be found in books of travel. Many of the observations of travellers having been unscientifically made, or observed under the influence of foregone conclusions, are worse than useless. Our anthropological notes and queries will do much for us in this respect, and letters which I have received from the governors of the whole of our colonies to whom they have been sent, show that the matter has been warmly taken up by some of them. What we require, however, is the means of

enabling travellers and other observers to make such investigations and collect such statistics as are necessary for anthropological purposes, and to do this a strong anthropological society is needed. We have received the most friendly assistance from the officers of the Geographical Society at all times, but their means of aiding us is limited. Geography of course takes the precedence in that body, and the same is necessarily the case with the expeditions sent out under their auspices. Much useful information has been obtained, but it is lamentable to think of the opportunities for anthropological investigation that have been lost by some of these expeditions, the main results of which have been to determine which way the water runs in particular places, whilst the flow of human races and of human culture has been made a secondary consideration. It is true that the Arctic Expedition has been furnished with full anthropological instructions, but it is unfortunate that the region selected for initiating these inquiries should be one which is probably uninhabited. The remedy rests in our own hands. If every member would do his best to procure new adhesions, our Society would rapidly increase. Experience has proved that there is no lack of interest in anthropological subjects on the part of the public, and we must seek out the causes which, in times now happily gone by, have made our Society a weakness in the midst of strength.

From the London Missionary Society and missionaries generally we have received valuable assistance, which we may hope will be continued.

The anthropological meeting at Bristol, presided over by Professor Rolleston, was a decided success, both in a scientific and a popular point of view, and was greatly patronised by the clergy. For some years past the work of that department has been conducted entirely by officers of the Institute.

Our Exploration Committee during the past year has been attended with successful results; upwards of £50 has been subscribed by members, whose names are appended. The work of the committee will be continued during the present year. From the British Association we have received £25 towards the cost of future excavations. Several members of the

Sussex Archæological Society have intimated a wish to co-operate with us, and with a small additional subscription from the members of the Institute, it is proposed to commence excavations in the Mount Caburn earthwork, near Lewes, where flint mines, similar to those of Cissbury, appear probably to exist. The consent of the owner, Mr. Brand, has been obtained for this purpose.

The measure admitting ladies to be members of the Institute has also met with the success that was anticipated. No hindrance to our discussion has resulted from their presence at our meetings; on the contrary, it has been observed that the discussions have been unusually well sustained on several occasions. Apart from the slight addition to our members afforded by this means, the effect of instilling anthropological knowledge into the minds of those who are so constantly engaged in the education of children, cannot fail to be regarded as a public benefit.

The success which attended the large public meetings of the Ethnological Society leads us to hope that by pursuing the same course we may increase our numbers, and spread a taste for anthropological studies amongst the public. It appears necessary to the success of such meetings that they should be held in some place that is habitually devoted to scientific purposes. Amongst those causes which hinder the development of our Society must be recognised the popular character of the subjects with which we deal. Whilst the geologist, the zoologist, or the chemist is compelled to go to his Society for an audience, the anthropologist finds willing readers amongst the public at large. Much valuable anthropological matter, therefore, goes direct to the public, instead of passing through our hands. But the importance of upholding the Institute as a focus for scientific criticism cannot be overrated, and I would therefore earnestly appeal to our leading anthropologists to take active interest in the internal affairs of the Society.

We have to regret the loss, I hope only temporarily, of our esteemed Director, Mr. Rudler, he having been appointed Professor of Science at the College of St. Asaph. It has been owing to his unwearying energy, during the short intervals of

time that he has been able to spare from his professional duties, that we are indebted for the regular appearance of our *Quarterly Journal* on the 1st day of each quarter, a matter of no slight importance to its success with the public.

Should the Institute obtain the development which, with proper management, may be expected, one of its most important functions will doubtless be the publication, in an abridged form, of anthropological facts culled from the proceedings of branch societies at home or abroad; but at present our finances are barely sufficient for the publication of the valuable original matter which we receive. Those, therefore, who desire the appearance of an *Anthropological Miscellany* in our *Journal* should pave the way for it by increasing our members.

Whilst our external relations have progressed satisfactorily, we have occasionally suffered some inconvenience from internal dissensions. Since the first formation of this Society, in 1844, it has thrown off two branches; but these have either died out, or been re-absorbed into the Institute.

This tendency to return to the fold must be attributed to the freedom of our discussions, and the liberty afforded for the promulgation of all rational views. With the same facts to work upon, reason can but conduct us to the same ends. During the past year I have been urged to initiate negotiations, with a view to amalgamate another anthropological society which, it may be remembered, was set on foot by seceders from our body a few years ago. But whilst expressing every friendly sentiment on the part of the Institute towards those who appeared anxious to return to us, I have not allowed myself to be allured by the promise of a body of new members into taking any steps which might tend to the re-establishment of schism within our council. With the full concurrence of my colleagues, it appeared to me a matter which should be left to be dealt with by the stern law of the survival of the fittest. The result has been that the society of which I speak has come to an end of its own accord. Some of its members have joined our ranks, and others, I hope, will follow, not in a body, but in the ordinary course of admission as Fellows, and will, I doubt not, become useful members of our Society.

Anthropologists may therefore be congratulated upon the present occasion upon being a united body. I hope that we may long continue so. We have a large and ever-widening field of usefulness before us, and our success is certain, if anthropology "do but to itself prove true."

SUBSCRIBERS TO THE CISSBURY EXCAVATION FUND.—Professor Busk, Mr. Hyde Clarke, Professor Boyd Dawkins, Capt. Dillon, Mr. John Evans, Mr. David Forbes, Col. Lane Fox, Mr. A. W. Franks, Canon Greenwell, Mr. J. Park Harrison, Mr. H. H. Howorth, Professor Hughes, Sir John Lubbock, Mr. F. G. Price, Professor Rolleston, and Mr. G. Willett.

It was moved by Mr. JOHN EVANS, and seconded by Mr. VAUX, "That the best thanks of the meeting be given to the President for his Address, and that it be printed in the Journal of the Institute."

Carried by acclamation.

ANTHROPOLOGICAL MISCELLANEA.

MR. DEANS, who has been employed lately in California as interpreter to some British Columbia Indians, communicates the following, which has not yet appeared in print.

Whilst in California I examined some of the kitchen middens or shell mounds on the shores of the Bay of San Francisco. Some of these are of large dimensions, one, situate near the silk factory in the valley Canda de la Visitacion, six miles south of San Francisco, measuring two acres in extent, and having a maximum depth of 25 feet. Between this one and Point San Bruno are seven or eight others of lesser size; and beyond these again is one with a circumference of 140 yards, and 40 feet in height. These are only some of a great number which lie around the bay. They are composed of oyster, mussel, and other shells, mussels forming a third of the whole, and being also in great numbers in the bay at this date. Bones of the dog, deer, and mountain sheep have also been found, but as yet I have seen no remains of domestic animals.

A large number of mortars and pestles have also been found at all depths from the surface to the bottom. At the foot of the hills of the Sierra Nevada there are hundreds of these mortars hewn out of the solid rock, many of them still having in them the pestles. The large mound already mentioned has been lately lowered 12 feet for the extension of the silk factory, and during the process I obtained from the Chinamen employed on the work many objects of bone, such as pins, awls, and also objects of stone, outlines of some of which are given. Some of the stone objects, it

Fig. 1.



Fig. 2.



has been suggested to me by an old Spaniard, were used in the manufacture of the blankets made from the hair of the mountain sheep mixed with the hair of dogs. I saw two skulls of a brachycephalic type, but very small, though of adults.

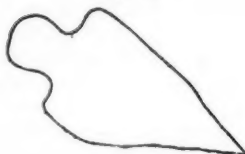
Some of the stones seem to have been used as bobbins for weaving, and to have been fixed in the frame by the small ends, as there is still some pitch adhering to the small ends of some of them. The portion next to this is smooth, as though worn by use, and the

other end is rough. Some of these are flat on one side, others round on both sides. No. 1 is of hard, coarse-grained sandstone, and shaped like a humming-top. No. 2 has rosin on the smaller end, and on it marks as of thread; the stone is very smooth. No. 3 is of bone, and appears to have been fixed in wood at the

Fig. 3.



Fig. 4.



smaller end, *a*, whilst at the other end is a notch, shown also at *b*; this notch, which runs lengthwise in the bone, appears to have been meant to guide a thread. No. 4 is an unfinished arrow-head of a greenish flint.

The mortars were some of them of hard black lava, others of granite, and others of hard sandstone. No weapons but arrow-heads have been found. By the side of every skeleton I have found, has been a very hard substance, like tanned leather, and though in small portions only, I have been told of a piece like a shield having been found.

In the before mentioned mound are six layers of ashes, mixed with charcoal of the Californian oak, in this order—first, a layer of ashes, then two feet of shells, then ashes, and so on to the top.

I hope to make further researches at a future date.

Victoria, V.I., March, 1875.

JAMES DEANS.

The following extract is from the *Bermuda Royal Gazette*, July 13, 1875:—

MAN IN BERMUDA.

SOME five or six years ago, as some of our readers will remember, at the instance of Professor Huxley, a number of photographs were taken to illustrate the features and physical characteristics of the people of Bermuda, and were forwarded to England, where they form part of an immense collection illustrative of all the

racés which enter into the vast and varied population of the British Empire. A committee of the British Association for the Advancement of Science has now issued a small volume, entitled "Notes and Queries in Anthropology," intended to promote more exact inquiries, and it has been lately placed, at their request, in the Public Library. It is calculated to show how inquiries and observations, such as medical men and clergy and registrars can readily make, may have results of wide scientific interest, both present and future.

The present small population of Bermuda contains at least six different races, viz. :—

(1) The descendants of Englishmen, and those mostly from the west of England, who came here under the Stuarts.

(2) The descendants of natives of Africa, probably all from the west coast, brought here to servitude many generations ago.

(3) The descendants of Indians of North America, chiefly from Virginia. They seem to be distinguished as *Musteses* in the old laws relating to slaves.

(4) The descendants of Indians, of a different race, from the Spanish Main; all the foregoing have been at least two centuries under the influence of the climate, food, and social conditions of Bermuda.

(5) Portuguese imported from the Western Islands about 1845.

(6) Swedes imported since 1873.

A few individuals of French, Italian, or German extraction need not be counted. Now there are here a comparatively large number of diversities, such as give rise to many questions asked in the book before us, and which, handled by an accurate and close observer, never fail to result in curious and often valuable information. It is not because people may be externally very much alike that there may not exist hereditary characteristics, by which they really differ considerably. It is apparent to every visitor that the original African type here has been very much modified by time and climate, and the refining influence of the kindly domestic service of former days. Even where the complexion is as dark as ever, a perceptible modification of feature has often taken place. The American Indian blood in some coloured families, notably in one, is most apparent. It is even said, by gentlemen who have been on the coast of Africa, that tribal distinctions may be detected.

The questions of the committee, however, are not confined to external appearances, such as complexion, character of hair, shape of head, stature, feature, colour of eyes, facial angles, but also extend to some physiological matters, such as temperament, mental endowments, tastes, preferences, and talents—for example, for music; to the effect of intermarriage, to the prevalence of insanity. Few persons will be found to deny that these are, in their way, as important inquiries in an isolated population of fifteen thousand souls, occupying a small group of islands, as they will no doubt be considered in the Dominion of Canada, which extends across a

continent, but where the difficulties of ascertaining the facts will be much greater; and in recommending the subject, we are permitted to state that any notes or observations addressed to His Excellency the Governor will be communicated by him to the committee, or otherwise applied, as their character may suggest.

The following is extracted from the *New York World*:—

CENTENARIANISM IN CANADA.

DESPITE the extreme range of temperature, a by no means rational diet and eminent neglect of sanitary precautions, the habitants, in very many cases, survive to a great age. Nor should it be difficult to authenticate the claims of a centenarian, since the parish registers have been kept with scrupulous care for periods of far more than a century, many dating back to the conquest of 1760, and some even to the early half of the 17th century. The extraordinary longevity of the descendants of the sturdy old Scotch settlers and German American loyalists of Ontario was sufficiently proved this summer by the grant by the Dominion Legislature of a gratuity to the surviving veterans of 1812. The Government, having ascertained the number of colonial soldiers under arms in that war, and made an average of age that was probably not far from accurate, submitted the problem of a number of survivors to an expert in life assurance. From English tables he decided that there were surviving at the end of the sixty years between six hundred and eight hundred of the veterans; but when they came to distribute the gratuity, some two thousand five hundred claimants proved themselves, by irrefragable evidence, entitled to participation therein, this number not including many whose claims could not be properly substantiated. The result was, naturally, a great reduction of the bounty to individuals. Even allowing that the fact was not sufficiently borne in mind that, fighting with inferior numbers, the people of Upper Canada received many youths into their forces, and that boys brought up on the frontier in those days were qualified to bear arms at a comparatively tender age, and would volunteer, the unusually great difference between the expectation of life and the age actually attained is most significant.

The following has been received from Mr. E. H. O'Callaghan, of Rathmines, Dublin:—

To the Editor of the JOURNAL OF THE ANTHROPOLOGICAL INSTITUTE.

SIR,—A statement appears in your Journal, vol. ii. No. 3, p. 447, to the effect that off the west coast of Ireland, in lat. 54° 8' N., there exists an island whose inhabitants are governed by a king,

who worship a large wooden idol, and who hold little or no intercourse with the mainland. A correspondent, who knows I am a constant student of anthropology, being naturally startled by such a very remarkable statement, drew my attention to it and asked for information.

I have waited very long, hoping that some one who visited the place would write on the subject, but as nobody, as well as I can find out, has spoken, I venture to say that, from the testimony of correspondents living in the vicinity of Belmullet, Mayo, near to which part of the coast Inniskea, the island in question, is situated, there are no facts to justify the exaggerated tale. There is almost daily intercourse between the islanders and the people of the mainland, they resemble each other in usages, dress, and religion, and intermarry to a considerable extent. According to himself, the writer, whose accuracy I question, possesses this advantage over me, that he has been on the island, and has seen the monarch, &c.

I wish the task of discussing this subject had been undertaken by some of my correspondents who have had a similar advantage; but as I believe no refutation has been attempted, I give you the best evidence in my power, and I think it would be highly inadvisable for your readers to credit the story until they shall have seen whether it can bear, like every scientific truth, thorough investigation and discussion.

Dublin, Jan. 23rd, 1876.

E. H. O'C.

Petermann's Mittheilungen for the current month contains a map of the Loango Coast of West Africa, showing the work done in exploration by the German African Expedition of 1873-75. A paper by Dr. A. Schreiber on the country of the Southern Battas of Sumatra is of great interest, especially since the territory they inhabit merges at a yet unknown limit in the north with Atchin, a country which has attracted much attention in its long continued hostilities with the Dutch. Dr. Schreiber speaks with authority, having been resident for the seven years between 1866-1873 in the Batta country. It is only within the most recent years that the darkness which shrouded this inland people of Sumatra has at all been cleared away. They are not negritos of the Australian type, as was at first believed, but in language, derivation, and customs, prove themselves to be a sister nation to that of the Malays, or a branch long separated from that stock. The central home of this people is believed by Dr. Schreiber to be round the borders of Lake Toba, a large highland expanse in the mountainous interior, from which a river flows to eastward. This lake has been recently mapped by the Rhenish missionaries, Leipoldt and Heine.

The narrative of Dr. Couto de Magalhães' journey along the Araguaya river in Brazil is continued, giving much interesting information about the Canoeiras Indians of the river. From the vocabulary collected by Magalhães it appears that their language is pure Guarini.—*Academy*, Feb. 12th, 1876.

REFERRING to the very full and learned paper on Rhabdomaney and Belomaney read by Miss Buckland before the Institute, the subjoined passage from the travels of Pietro Della Valle, a Roman knight, who in the seventeenth century travelled through India and the East, may be not without interest, particularly as giving an instance in which the two kinds of divination are blended, the arrow being used as the rod. In 1625, at Aleppo, Pietro Della Valle relates that he saw a Mahometan conjuror "cause two persons to sit upon the ground, one opposite to the other, and giving them four arrows into their hands, which both of them held with the points downward, and, as it were, in two right lines united one to the other. Then a question being put to him about any business, he fell to murmur his enchantments, and thereby caused the said four arrows of their own accord to unite their points together in the midst (though he that held them stirred not his hand), and according to the future event of the matter, those of the right side were placed over those of the left, or on the contrary."

Some of the instances given by Miss Buckland may be compared with the principal classical passages relating to the practice, which are here given in full.

"There are many soothsayers amongst the Scythians who predict with a number of osier rods in this manner. They bring large bundles of rods, put them on the ground, untie them, and lay each rod apart one by one. They then predict, and whilst doing so, gather up the rods again backwards, and put them together one by one. This is their national way of divination. But the class amongst them called Enareës, which means unsexed men, affirm that Venus conferred on them the power of divining, which is done with three strips of linden bark, a man twisting them round his fingers, and uttering predictions whilst untwisting them."—Herodotus, iv. 67.

Still it is not clear how the responses were decided: probably the rods were marked, as in the following instance amongst the Germans, jumbled together when untied, and taken up from behind with unreverted eyes. The putting them together again, as well as the untwisting of the bark strips, seems also to have been a material point in the operation.

"They (the Germans) make much account of lots and fortune-telling. The method of lots is simple: they cut a rod of a fruit-bearing tree into slips, marked with certain signs, and scatter them at random over a white cloth. Then, if the matter in question be of public import, the priest, or if of a private nature, the head of the family, invoking the gods and looking upwards, takes up three slips one by one, and draws an augury from the marks upon them."—Tacitus, "Germania," 10.

The *fruit-bearing tree* was probably hazel, no other producing straight shoots being easily accessible in the German forests.

M. J. W.

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CORRIGENDA.

Page 111, line 6, for "Capt. Pocock," read "Capt. Powell."

" 127, " 3 from bottom, for "British Port," read "British Fort."

" 249, " 2, for "had," read "have."

" 30, for "probably," read "probable."

" 392 " 8 from bottom, for "chalk nodule," read "flint nodule."

REGULATIONS
OF
THE ANTHROPOLOGICAL INSTITUTE
OF
GREAT BRITAIN AND IRELAND,

AGREED TO AT A GENERAL MEETING, MARCH 9TH, 1875, FOR REGISTRY
AS ARTICLES OF ASSOCIATION.

1. For the purposes of registration, the number of the Members of the Institute is declared not to exceed 600.

2. These Articles shall be construed with reference to the provisions of the Companies' Act, 1862, and the Companies' Act, 1867, and terms used in these Articles shall be taken as having the same respective meanings as they have when used in those Acts.

3. The Institute is established for the purposes expressed in the Memorandum of Association.*

QUALIFICATION OF MEMBERS.

4. Every person desirous of admission to the Institute as a Member shall be proposed and recommended, agreeably to the Form No. 1 in the Appendix; which Form must be subscribed by at least two Members, one of whom shall certify his personal knowledge of such Candidate. Nomina-
tion of
Members.

5. Every Candidate's recommendation must be delivered to the Director, and shall be submitted to the Council at the next meeting.

6. The Council shall proceed to the election by a show of hands, or by ballot, if any Member demand it. The voting shall Election of
Members.

* The objects for which the Association is established are :—(1) The promotion of the study of the Science of Man. (2) The doing of all such things as are incidental or conducive to the attainment of the above object.

take place at the next Council meeting after that on which the Candidate is proposed, and no person shall be considered as elected unless he have three-fourths of the votes in his favour.

ADMISSION OF MEMBERS.

Admission
of Mem-
bers.

7. Every person so elected shall, on payment of his subscription, be admitted by the Chairman at the first Ordinary Meeting at which such person is present, according to the following form:—"In the name, and by the authority of the Anthropological Institute, I admit you a Member thereof"; and such person shall thereupon sign an undertaking to abide by the Rules of the Institute in the Form No. 2. Members unable to attend shall sign a copy of such undertaking to be forwarded to them for such purpose.

RETIREMENT OF MEMBERS.

Retiring of
Members.

8. Any Member may, on payment of all arrears of his Annual Contribution, withdraw from the Institute, by signifying his wish to do so by letter under his own hand, addressed to the Director or the Secretary. Such Member shall, however, be liable to the Contribution of the year in which he signifies his wish to withdraw; and shall also continue liable for the Annual Contribution until he shall have returned all books, or other property, borrowed by him of the Institute; or shall have made full compensation for the same, if lost, or not forthcoming.

RIGHTS AND CONTRIBUTIONS OF MEMBERS.

Privileges
of Mem-
bers.

9. The Members have the right to be present, to state their opinion, and to vote at all General Meetings; to propose candidates for admission into the Institute; to introduce two Visitors at the Ordinary Meetings of the Institute; to have transmitted to them all official documents and publications which the Council may cause to be printed for the use of the Institute; and, under such limitations as the Council may deem expedient, to have personal access to the Library and all other public rooms in the

occupation of the Institute, and to borrow books, maps, plates, drawings, or specimens, belonging to the Institute. Honorary Members shall have the same rights, with the exception of that of being present and voting at General Meetings, and they shall not be deemed to be "Members" within the meaning of the Memorandum of Association.

10. Any Member is eligible to be a Member of the Council or Officer of the Institute.

11. Each Member shall pay an Annual Contribution of two guineas, which may at any time be compounded for by a payment of £21. Contributions of Members.

12. The Annual Contributions shall become due in advance on the first day of January in each year.

13. Whenever a Member shall be one year in arrear in the payment of his Annual Contribution, the Treasurer shall forward to him a Letter of the Form No. 3 in the Appendix, or of Form No. 4, according to whether he shall reside in London or in the country.

14. If the arrears be not paid within one month after the forwarding of such Letter, the Treasurer shall report such default to the Council, and the Council shall use its discretion in erasing the name of the defaulter from the List of Members; and in the discretion of the Council he shall not be allowed to attend the Meetings of the Institute, or to receive any of its publications, or to enjoy any of its privileges and advantages, until his arrears be paid. At the end of six months, the name of the defaulter may be suspended in the Meeting Room.

15. Should there appear cause, in the opinion of the Council, for the expulsion from the Institute of any Member, a Special General Meeting shall be called by the Council for that purpose, and if three-fourths of those voting agree, by ballot, that such Member be expelled, the President, or other Member in the Chair, shall declare the same accordingly, whereupon the name of the person expelled shall be erased from the List of Members. Expulsion of Members.

Election of
Honorary
Members,
Corres-
ponding
Members,
Local Sec-
retaries, &c.

16. The Honorary Members, Corresponding Members, and Local Secretaries, shall be elected by the Council, under the same conditions as laid down in Reg. 6, for ordinary Members, and such elections shall be announced to the Institute at its next Ordinary Meeting.

Local Sec-
retaries.

17. The Council may appoint Local Secretaries in Great Britain and Ireland, or in other countries, whose duty it shall be to communicate regularly with the Executive, and to give the earliest intimation of any discovery relating to the Anthropology of their respective localities. Every such appointment shall continue only during the pleasure of the Council. Such Local Secretaries shall be chosen, as far as possible, from the Members of the Institute. Gentlemen holding the office, and not being Members of the Institute, shall be entitled to attend its meetings, and to such other privileges as the Council may from time to time decide.

OFFICERS AND COUNCIL.

Constitu-
tion.

18. The Institute shall consist of a President, Six Vice-Presidents, a Director, a Treasurer, Members, Honorary Members, Corresponding Members, and Local Secretaries.

Govern-
ment.

19. The Government of the Institute shall be vested in the President, the Vice-Presidents, Director, and Treasurer, who shall be *ex officio* Members of Council, and of twenty ordinary Members of Council to be elected as hereinafter directed.

Election of
Council.

20. The President, Vice-Presidents, Director, Treasurer, and ordinary Members of the Council, shall be elected by ballot at the Annual General Meeting; and two at least of the ordinary Councillors shall retire from office annually; the retiring Members to be selected by the Council.

Privileges
of Council.

21. If, in the interval between two Annual Meetings, any vacancy in the Council occur, the Council may appoint some Member of the Institute to fill such vacancy. Particular subjects may be referred by the Council to Committees, and such Committees shall report to the Council the result of their proceedings.

MANAGEMENT OF INSTITUTE AND POWER AND
DUTIES OF COUNCIL AND OFFICERS.

22. The Council shall meet on some convenient day in the week of each Ordinary Meeting, and a book shall be kept in which the attendance of each Member shall be certified by his own signature at the time of his entering the Council-room. The President, or any three Members of the Council, may at any time call a Special Meeting of the Council, to which the whole Council shall be summoned.

Council
Meetings.

23. In all Meetings of the Council, five shall be a quorum; all questions shall be decided by vote, unless a ballot be demanded; and a decision of the majority shall be considered as the decision of the Meeting; the Chairman to have, in case of an equality, the casting vote.

24. The Council shall be empowered to grant a remittal or abatement of subscription fees in a limited number of cases, when it may be found desirable to elect gentlemen to the membership who are distinguished for their services to Anthropological Science, and to whom the usual payments may be impossible or highly inconvenient.

25. The duties of the Council shall be to see that Minutes of its proceedings are taken during their progress; which Minutes shall be copied into a Minute-Book kept for that purpose, and read at the next Meeting of the Council, and, if found correct, shall be signed by the Chairman. Also, to examine, present, and cause to be read at the Annual General Meeting, a Report of the accounts and of the state of the affairs of the Institute for the preceding year. The Council, or a Committee appointed by them, shall also have the general superintendence of all the publications of the Institute; and shall select works to be translated, and appoint some Member of the Institute to edit the same. The Council shall also act for the Institute in any matter which is not specified in these regulations. It is the duty of the Council to prepare the House-list of retiring Mem-

Duties of
Council.

bers of Council, and also of Candidates to be recommended at the Annual General Meeting to fill up the vacancies.

Duties of
President.

26. The President shall take the chair at every Meeting of the Institute or of the Council at which he may be present: he shall keep order in all proceedings; submit questions to the Meeting; and perform the other customary duties of a chairman.

27. It is his duty to execute or cause to be executed the Regulations of the Institute, to see that all the Officers of the Institute, and members of the Council and of Committees, perform the duties assigned to, or undertaken by, them respectively; to call for Reports and Accounts from Committees and persons; to cause, of his own authority, and when necessary, Special Meetings of the Council and of Committees to be summoned.

28. When prevented from being present at any Meeting, or from otherwise attending to the current business of the Institute, he will be expected to give timely notice thereof to one of the Vice-Presidents, or, in their absence, to some other Member of the Council, in order that his place may be properly supplied.

Duties of
Vice-Presi-
dents.

29. One of the Vice-Presidents, if present, shall take the place of the President when absent.

Duties of
Treasurer.

30. The Treasurer has special charge of all Accounts; and shall see to the collecting of all sums of money due to the Institute. And he shall report, from time to time, to the Council, the names of all such Members as shall be in arrear, together with the sums due respectively by each.

31. He shall, with the consent of the Council, appoint a Collector, who shall give adequate security for an amount to be approved by the Council, and who shall receive a reasonable remuneration; and all the money collected shall immediately be paid to the Bankers of the Institute.

32. The Treasurer shall pay all accounts due by the Institute after they shall have been examined and approved by the Council. All drafts on the Banker shall be signed at a Council Meeting by the Chairman, Treasurer, and Director. And the

Accounts of the Treasurer shall be annually audited by two Members, proposed by the President, and approved by the Ordinary Meeting held next before the Annual General Meeting.

33. The Director shall have a general charge of all the arrangements of the Institute, and of the execution of all the orders of the Council. He shall conduct the correspondence; attend the Meetings, and direct the business of the same. He shall see that a note of the Papers read at the Ordinary Meetings is inserted in the Minutes; and that all such Minutes of the proceedings, whether of the Institute or of the Council, are entered in the several Minute-Books.

Duties of
Director.

34. The Director shall keep a complete List of the Members of the Institute, with the name and address of each accurately set forth: which List, with the Books of Account, shall be laid on the table at every Ordinary Meeting of the Council.

35. The Director shall have the immediate superintendence of all persons employed by the Institute; and have charge of its Books, Papers, Maps, Specimens, and Drawings. He shall see that all accessions to them are properly placed and catalogued

36. In the absence of the Director, the duties belonging to that official shall be performed by some person appointed by him for that purpose.

37. Every Paper which may be presented to the Institute shall, in consequence of such presentation, be considered as the property of the Institute, unless there shall have been any previous engagement with its author to the contrary; and the Council may publish the same, in any way and at any time, that they may think proper. But should the Council refuse, or neglect, within one year to publish such Paper, the author shall have a right to publish it upon his own responsibility. No other person, however, shall publish any Paper belonging to the Institute, without the previous consent of the Council.

Original
Papers.

MEETINGS.

Annual
General
Meetings.

38. A General Meeting shall be held annually in January, to receive the Report of the Council on the state of the Institute, and to deliberate thereon; and to discuss and determine such matters as may be brought forward by the Council relative to the affairs of the Institute. Also, to elect the Officers for the ensuing year. The Chairman shall cause to be distributed a sufficient number of balloting-lists, according to the Form No. 5 in the Appendix; and he shall appoint two or more Scrutineers, from among the Members present, to superintend the ballot during its progress, and to report the result to the Meeting: the ballot shall close at the expiration of one hour.

39. Each Member voting must deliver his balloting-list, folded up, to one of the Scrutineers, who shall immediately put it into the balloting-box; and the name of the Member so delivering his list shall be taken down by the Secretary, or by some person appointed to do so.

Special
General
Meetings.

40. The Council shall call a Special General Meeting of the Institute when it seems to them necessary, or when required by the requisition of any ten Members so to do.

41. Every such requisition, duly signed by ten or more Members, must specify, in the form of a Resolution, the object intended to be submitted to the Meeting.

42. The notice of the Special Meeting, or the requisition and the resolution, as the case may be, shall be suspended in the Institute's rooms for two weeks, and a copy sent to all Members one week previous to such Meeting; and at the Meeting the discussion shall be confined to the object specified in the resolution, or, in the absence of a requisition, then in the notice convening such Meeting.

Ordinary
General
Meetings.

43. The Ordinary Meetings of the Institute shall be held on such days as the Council shall appoint in each month from November to June, both inclusive; and a printed card of such Meetings shall be sent to each Member.

44. Business shall commence at Eight o'clock in the evening precisely.

45. At the Ordinary Meetings, the order of business shall be as follows: The Minutes of the last Meeting shall be read aloud, and if found correct, shall be signed by the Chairman; the presents made to the Institute since their last Meeting shall be announced; communications shall be announced and read; after which, the persons present shall be invited by the Chairman to deliver aloud, from their places, their opinions on the communications which have been read, and on the specimens or drawings which have been exhibited at that Meeting.

46. Every Member shall have the privilege of introducing two Visitors at each Ordinary Meeting of the Institute, whose names, and that of the Member introducing them, shall be entered in a book kept for the purpose.

47. At an Ordinary Meeting, no question relating to the Rules or Management of the Institute shall be introduced.

INTERPRETATION CLAUSE.

48. In these Articles words importing the masculine gender shall include the feminine, and words importing the singular number the plural, except where the matter or context shall exclude such construction; and when an office in the Institute is held by more than one person, either of such persons may do anything appertaining to such office.

APPENDIX.

FORM No. 1.

A. B. [here state the Christian Name, Surname, Description, and usual place of residence of the Candidate] being desirous of admission into the Anthropological Institute of Great Britain and Ireland, we recommend him as a proper person to become a Member thereof.

day of 18
_____ from personal knowledge.

FORM No. 2.

I, the undersigned, having been elected a Member of the Anthropological Institute of Great Britain and Ireland, do hereby engage to pay all subscriptions which shall become due from me as such Member, and also to abide by the Rules of the said Institute, as they are now formed, or as they may be hereafter altered or amended: provided, however, that whenever I shall signify, in writing, to the Council, that I am desirous of withdrawing from the Institute, I shall (after the payment of the Annual Contributions which may then be due by me, and after giving up any Books, Papers, or other property belonging to the Institute, in my possession), be free from this obligation.

Dated the day of 18

FORM No. 3.

SIR,

I am directed by the Council of the Anthropological Institute to inform you that according to their Books the sum of _____ was due in respect of your Annual Contribution on the first day of January last; the payment of which, as early as possible, is hereby requested.

I have also to inform you, that A. B. has been appointed Collector to the Institute; and that, in order to save you the trouble of sending your contribution, he has been directed by the Council to wait upon you for the same.

I have the honour to be, Sir,

Your obedient servant,

Treasurer.

FORM No. 4.

SIR,

I am directed by the Council of the Anthropological Institute to inform you that according to their Books the sum of _____ was due in respect of your Annual Contribution on the first day of January last; the payment of which, as early as possible, is hereby requested.

I have also to suggest, that the amount of your Contribution can be conveniently remitted by a Post-Office Order, made payable at the General Post Office, London, to my order.

I have the honour to be, Sir,

Your obedient servant,

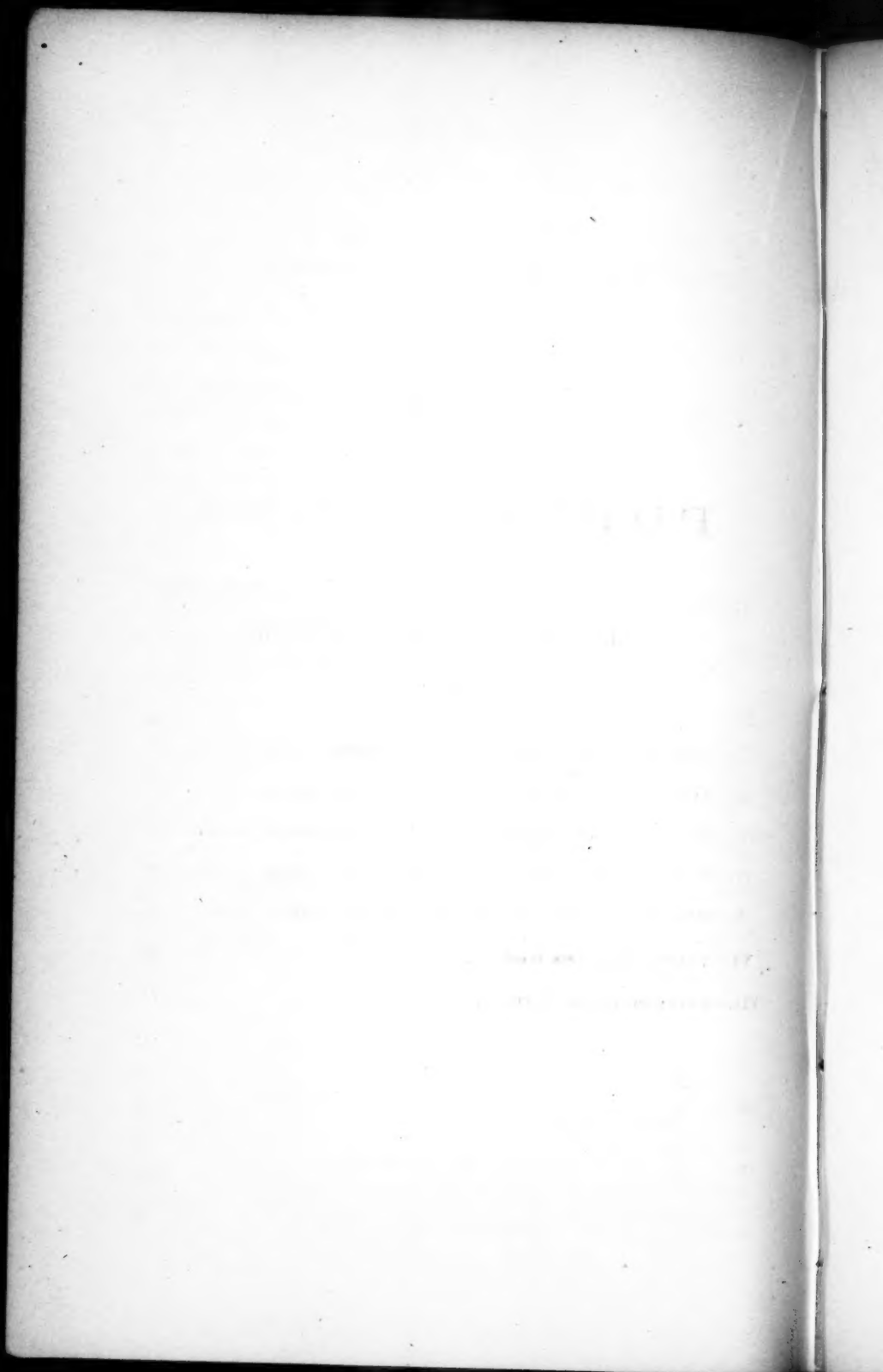
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